

ENGLISH BIRD LIFE



BY H. KNIGHT
HORSFIELD.

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ENGLISH BIRD LIFE





LONG-EARED OWL WITH FIELD-MOUSE

ENGLISH BIRD LIFE

BY

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ETC., ETC.

ILLUSTRATED BY OVER ONE HUNDRED PHOTOGRAPHS
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TO

D. H.

IN RECOGNITION OF ASSISTANCE AND ADVICE

NOTE

“And the chaffinch sings on the orchard bough
In England now.”

IN these pages I have tried to picture something of the Bird Life in England to-day. At times I have followed the travellers far afield: to the Scottish Highlands, to Norway, and even to the *tundras* of Siberia. But my chief aim has been to show in their haunts and homes: in the woodlands, fields and moorlands: by river, lake and sea, something of the life of the birds of our own country: the birds in England, now.

The photographs used as illustrations represent the work of years spent in observation. In many cases they show phases of bird-life rarely to be witnessed, and have been obtained under conditions which may never recur.

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ENGLISH BIRD LIFE

DIURNAL BIRDS OF PREY

THE diurnal birds of prey—the Eagles, the Falcons and the Hawks—stand at the head of the feathered races. Born in the purple, accustomed to work their sovereign will upon legions of weaker subjects, high-handed and intolerant, their ferocity has at least the fine qualities of courage, strength and endurance.

The Golden Eagle is a king by nature. Enthroned on inaccessible rock, he brooks no peer. The trembling serfs below—the lapwing, the curlew and the grouse—crouch to earth at his approach. They know him to be the lord of life and death.

To the bird-lover, the pity of it is that the Raptores should be so rare in Great Britain. True, owing to wise preservation, the Golden Eagle may now be frequently seen in the Scottish Highlands, soaring in wide circles above his ancestral hills, and the smaller hawks, and even the Peregrine, once the pride of British Falconry, are still constantly to be met with. But the fact remains that of the twenty-two species of Falconidæ which are included in the British list, some four or five

only can fairly be classed as familiar in our own country.

The Spotted Eagle owes its place to a few occurrences only. Of the Greenland and Iceland Falcons, a specimen, usually immature, drifts occasionally southwards to these islands, but the records are comparatively rare. Of the Red-footed Falcon about twenty occurrences since 1830 are noted. The Goshawk is now extremely rare, and has probably always been so; for many of the early references to this bird apply equally well to the Peregrine Falcon—in many places, indeed, the name Goosehawk is still applied to the Peregrine. The Harriers, which were at one time fairly plentiful, have now largely disappeared; and of the Buzzards, one alone can be described as being fairly well known.

The Red Kite was once widely distributed in England, and was so common even in London, that the Bohemian Schaschek, writing in 1461, regarded it as one of the features of the British Metropolis. Speaking of London Bridge, he remarks, "Nowhere have I seen so great a number of Kites as there;" and it is clear from other sources that this Kite was constantly met with in the London streets, acting as a most useful scavenger. Now it may be said to be almost on the verge of extinction.

The inclusion of the Black Kite rests upon one occurrence in 1866, and that of the Swallow-tailed Kite upon four or five, mostly doubtful.

The Hobby, again, can hardly be classed as a familiar English bird. As the Sparrow-hawk follows the Goshawk in formation, so the Hobby



KESTREL

may be said to be a Peregrine Falcon in miniature. It is a summer visitor only, coming in April and leaving with the Swallows, in October. Its distribution in these islands is very unequal. Yarrell states that its range in England is somewhat like that of the Nightingale. The analogy is not strong, however; the Nightingale, for example, being very plentiful in parts of Somerset, where the Hobby is extremely rare. Then, again, a line drawn through Yorkshire from Flamborough Head to Morecambe Bay may be said roughly to define the northern range of the Nightingale, whereas the Hobby certainly occurs as far north as the Isle of Arran. In Ireland, two occurrences only are noted, and in Wales it is little known.

The Falconidæ which may now be classed as familiar English birds are thus reduced to three species—the Sparrow-hawk, Kestrel, and Merlin.

The Sparrow-hawk usually builds in fairly high trees, not unfrequently appropriating the abodes of Crows and Magpies, and the eggs, four to five in number, are heavily blotched with brownish-crimson on a bluish-white ground. The young are covered with a delicate and pure white down. The species is generally distributed throughout the United Kingdom, and inhabits every country of the European continent, as well as many other parts of the world.

It has been said that the female Sparrow-hawk, when she has nestlings, is the only bird of prey that the British gamekeeper has to fear. It is certain that at this time the mother bird is unusually

bold and unscrupulous. She will carry off chickens from the farmyards, and young pheasants from the edges of the coops, beneath the very eyes of the watchers. But it is questionable if the damage done by the smaller hawks amounts to any appreciable sum. Their staple food consists of wild birds, together with voles, mice and insects, and there is a certain balance in Nature which they unquestionably help to maintain. Selby states that he found in one Sparrow-hawk's nest, containing five young ones, one Lapwing, two Blackbirds, one Thrush, and two Greenfinches—all species which are fairly prolific and from which some toll may properly be taken.

The principle upon which Hawks select their victims is by no means clear. One constantly sees the Sparrow-hawk flying unostentatiously through the woodlands, attended by quite a crowd of small birds. They are actively mobbing him, almost touching his wings at times, in their fleeting attacks. If he were at all vindictive he might surely strike one down, by a mere turn of his talons. But he suffers all indignity patiently, and appears to have no aim save to escape from their unwelcome attentions. At another time, like a streak of lightning he strikes a passing bird, and, descending to some branch, or other point of vantage, tears it to shreds.

Mr. Metcalfe has an interesting note upon this species. He states that when the hen is sitting, the male will bring birds which it has killed, leaving them upon the ground near the nest, always in one particular place.



YOUNG KESTRELS, FIVE WEEKS OLD, IN NEST

The Kestrel is perhaps the commonest of the hawks in England. The nesting site is usually in a tree—a fir tree in some narrow belt, or hedgerow, being often chosen in preference to a wood, and very commonly the deserted nest of a Crow or Magpie is occupied. It also builds in rocks and in the recesses of steep banks. More rarely, the nest is found in old towers and ruined buildings, and in the trunks of hollow trees. Lord Lilford states that in Spain, where it is extremely abundant, it is found nesting in almost every church-tower and ruin in town or country. The eggs are four to five in number, thickly mottled with dark-brown or red, varying much in size. The young are hatched about the end of April, and are covered with yellowish down.

Like many other birds, the Kestrel increases in numbers in the south in autumn, whereas in more northerly districts it either disappears altogether, or is but seldom seen. It is thus clear that in England it partially migrates, whilst in many other countries it does so absolutely.

The hovering of the Kestrel—the manner in which it maintains its stationary position in the air for long spaces of time—has attracted the attention of many diverse observers. Sir Walter Scott saw it with a poet's eye alone; to Richard Jefferies it suggested not only poetry—the vision of force suddenly turned into watchful ease at the will of its owner—but it also provided material for curiously minute observations of the methods of wing-poise, balance, and susceptibility to air currents, which may yet make his paper, "The Hovering of the

Kestrel," of no small value to the student of aërial navigation.

The Kestrel feeds largely upon voles and field-mice, thereby rendering the farmer efficient aid, for a plague of voles is by no means an unknown evil. When hovering, its keen eye searches the tangled herbage far beneath, and, when it sees the tiny form moving below amidst the stems, it drops suddenly upon it—a veritable bolt from the blue. Sometimes it will descend upon what appears to be a likely spot—or, more probably, where it has seen the movement of a mouse—and watch like a cat for the reappearance of its prey.

The Merlin is distributed rather unequally throughout England. At one time it was considered to be merely a winter visitant to the southern districts, but it is now known to breed in most English counties; whilst from Yorkshire northwards to the Shetlands it is of fairly common occurrence. The nest is placed upon the ground amidst heather, or in rocks, and on rare occasions in England, in a tree. The four to six eggs are deeply mottled with dark red merging into purple. The bird is found pretty generally throughout the European continent, and it also visits parts of India, and occasionally China. Like the Kestrel, the Merlin varies its diet with courses of moths, cockchafers and other insects, but small birds probably form its staple food. These it hunts down resolutely, pursuing them into the recesses of trees and brushwood, where even the Peregrine himself would forbear to follow. In the palmy days



MERLIN ON NEST



YOUNG MERLIN

of British Falconry the Merlin found a regular place in the stud with the Peregrine and Goshawk, when it was flown at Larks, Blackbirds and other small fowl. It is said to attack Partridges and Grouse—birds more than double its own weight—but this, I think, is unusual. It is known on good authority, however, that a trained Merlin will follow and bring down a pigeon.

These little hawks readily become tame, and take kindly to captivity. Lord Lilford, however, who had an unusually wide experience of wild birds reclaimed from a state of nature, tells us that they require great care and skilful management to keep them in good flying condition. He also throws some doubt upon the character for pluck and dash with which they are generally accredited.

My own experience, for what it may be worth, goes to support popular tradition. An adult Merlin, recently caught, when it came into my possession, soon lost all fear of its captors, and its reckless courage far exceeded that of any hawk I have known. On one occasion, when at large in a room, it pursued an escaped Greenfinch with the utmost ferocity, brushing through hanging drapery and chivying its victim from beneath the heavier furniture, without the slightest regard for the interference of the bystanders. It was only by actually seizing and holding it that its headlong pursuit could be checked.

In its mode of quest the Merlin differs materially from the Kestrel, owing, of course, largely to the different character of its prey; for though the latter may now and then take birds, this would appear

to be by no means its regular habit. The hovering Kestrel, hanging motionless in the sky, at once arrests the attention, and is one of the conspicuously interesting features of bird-life. If it be observed carefully through a field-glass, it will be seen that the head, always turned to the wind, is pressed downwards, and that the keen eyes are scrutinizing the ground beneath. When a mouse is discovered, the wings suddenly close, and the lean form, with claws extended, shoots straight down upon its victim. The Merlin, on the other hand, rarely hangs upon its wings. Its custom is to take its way, flying low along the hedgesides, or amidst the gorse of the common. Then when a Linnet or Meadow-pipit crosses its track, it may be seen to give chase, following the marked bird with hound-like persistence, and rarely failing to recover its quarry. This mode of pursuit is known in Falconry as *raking*, in contradistinction to the manner of the Peregrine and others, which rise in wide circles above their soaring prey, and stoop down suddenly upon it.



THE HAUNT OF THE MERLIN

BIRDS OF THE NIGHT

THE long summer day draws to a close. A little while ago a Willow Wren sang faintly in the recesses of the wood, and the Swifts still might be seen flying high. Now, one by one, the sights and sounds of Nature die down. The Whitethroats cease to move restlessly in the brambles by the hedge, and the Blackbird which flew across the road, with a scream of defiance, making for the tall hawthorns beyond, gives no further sign.

In the country it is hard to find a spot so desolate that it is possible to rest there, even for a few moments, without some living thing coming within one's ken. By the riverside, in the open meadow, in the depths of the wood, wait but a little while in perfect stillness, and the true owners of the small domain which falls within the circle of your eye will resume the work or play which your footstep has arrested.

But now, just when day and night meet, all animated Nature has disappeared. In the crannies of the wall, in the deeps of the mowing grass and of the corn, in the infinite harbourage of the full-leaved woods, all the wild life of the countryside seems to be hidden away in silence.

But only for a little while are the activities of Nature suspended. Night has her votaries as well

as day. The gathering dusk which closes the petals of the wild flowers, and stills the song of the Willow Wren and the Lark, is the signal for other eyes to awaken and alert forms to issue forth.

Standing in the recess of the wood, the shadows of the great oaks form a pool of blackness on the grass, but beyond this the eye can easily follow the light band of the road as it runs through the darker green of the closely-cropped sward on either side. The night wind stirs the leaves of the trees, and far away across the valley a single light appears from some distant farmstead. In the warm, leafy darkness, a great beetle, his horny wing-shields raised to give play to the gossamer pinions beneath, goes humming by on some nameless errand. Now a faint burr-rr-ing sound reaches the ear; trembles on the very verge of hearing, as it seems.

Soon we see clearly the pointed wings of the Nightjar, turning in the air, swallow-like, to snap a moth, then vanishing in the dark recess of the oaks. Now it rests on a bough close at hand, not standing athwart upon it, after the manner of other birds, but crouching lengthwise, with its head depressed lower than its body, and the burr-rr-ing sound becomes more distinct. Indeed, it is not certain that this peculiar cry is ever uttered when the bird is actually upon the wing.¹ At one moment one hears it from the left, then from the right; now it is in front, and now behind, so that one seems to be surrounded by

¹ The somewhat startling call- or alarm-note, however, is heard during the flight.

voices, long before a glimpse of the moving figure can be obtained.

As the darkness deepens, other birds awaken. The Owls leave their fastnesses and sally forth. When seen in the daytime, at a high elevation in the darkest corner of the granary, the Barn Owl appears to be asleep. For many hours it will remain perfectly motionless, its form barely to be distinguished from a patch of dusty and cobwebbed plaster. But a little before sundown it grows suddenly alert. Like a mere bunch of animated feathers, yet with swiftness and precision, it drops to the loophole in the masonry which gives access to the world beyond. Then it sails into the gloom of the stackyard, the legs stretched behind as though to counterbalance the great head, and the keen eyes scrutinizing every corner and small enclosure of the fold. Sometimes it appears barely to skim the earth; then rising, its dim, shadow-like form disappears over the wall. Now as the gloaming deepens, it pursues its way, skirting the long dark line of the hedgerow, beating its soundless course across the meadow, searching the narrow track by the wood, and ascending at every obstacle as though it were suddenly upborne by an imperceptible air-current, rather than by the motion of its wings. Then its flight is arrested; on the instant it drops like a stone in the herbage. Already the sharp talons have grasped the trembling little mouse, and in a moment more the Owl, like a grim air-ship, is sailing back with its freight. When it reaches the narrow slit in the stone, the prey is adroitly slipped from claws to bill, so that the feet

may be used, and, moving with certain ease in the inner darkness, the bird regains its haunt.

It is not difficult to see how the Owl family have become linked with so many popular superstitions. Their habit of haunting churchyards, their soundless movements, the unearthly cries with which they suddenly break the stillness of the summer's night, alike affect the imagination.

“Out on ye : Owls? Nothing but songs of death.”

But although the Owls may not attend the windows of dying persons to bear away their souls, they are, none the less, mysterious messengers of fate for many populous communities.

The number of mice and other small creatures destroyed in regions where Owls are at all plentiful, may be roughly estimated from the following facts : After the manner of Hawks, the Owls cast up the bones, fur and feathers of what they devour, and these “pellets,” or “castings,” afford data from which the relative characters and quantities of their prey may be arrived at. A German naturalist, quoted by the editor of White's *Selborne*, collected these castings at different seasons of the year, for examination. In 706 castings of the Barn Owl he found the remains of 16 bats, 3 rats, 237 house-mice, 693 field-mice, 1590 shrews, 1 mole and 22 small birds.

The flight of these night-feeding birds is perhaps their most interesting peculiarity. How is the airy buoyancy attained which enables them to waft themselves, soundless as shadows, along the dark hedgerows and across the gloom-hidden fields? In

the Owls, the number of the quill-feathers is equal to that of birds of the most powerful wing, giving them the greatest facilities for sustained and rapid flight. Their noiseless movements are not attained by any diminution of force. But the texture of the feathers differs essentially from that of the plumage of the Falcons and of most other birds. It is of the downiest softness, and the fibres of the wing-webs being of unequal length, allow a free passage to the air, and are so pliable that they yield to the lightest pressure. This is the secret of their flight.

Then the eyes are so constructed that they gather in the faintest and fewest rays of light, and the feet and claws are finely formed for the sudden seizure of prey, the external toe being versatile. Thus in the Owl, we see a carefully perfected and delicately balanced engine of death, framed to survey the intricacies of the herbage in the darkness, to glide swiftly and silently through the air, and to bring down the relentless mechanism of foot and talon upon the quarry. From such a foe there is no safety for even the tiniest mouse as it steals along, sheltered, as it may believe, in the double security of dense cover and of night.

In the list of British Birds, Yarrell gives ten species of Owls. Of these, four only can fairly be described as familiar—the Tawny, Long-eared, Short-eared and Barn Owls. Of the remaining six, Tengmalm's Owl is a very rare visitant to Great Britain. Its inclusion in the British list rests upon about fourteen occurrences since 1812

for England and three for Scotland. In Ireland it is unknown.

The Eagle Owl, one of the largest species of the family, is even more rarely met with in these islands, eight or ten occurrences only having been noted.

The Snowy Owl, again, is an Arctic form which has drifted here on some few occasions, and the appearance of the Scops Owl and the Hawk Owl is at least equally rare.

Of the Little Owl it is difficult to speak with certainty, for many of the occurrences are doubtless those of birds which have escaped, or have been released from captivity. For example, in 1842, Waterton describes how he imported and set free a number of Little Owls at Walton Hall—that once well-known sanctuary for birds—and subsequently Mr. St. Quentin in Yorkshire, and Mr. Mead-Waldo in Hampshire, introduced many others. Within comparatively late years Lord Lilford tried a similar experiment at Lilford Hall in Northamptonshire. That the birds have become acclimatized is clear, and in certain localities they are now a fairly familiar species.

Of the four truly British species, the Tawny Owl is probably the most widely distributed. As it lives mainly in dense woods and wooded parks, and is strictly nocturnal, it is not very commonly seen, and the Barn Owl, the area of whose habitat is limited, and usually chosen in the neighbourhood of human habitations, is more often in evidence. But if one may judge from the cries at night—the loud,



YOUNG TAWNY OWLS

clear hoot—the “ Tu-whit—Tu-whoo ” of Shakespeare—which has come to be typical of the family, startling one as they do in solitudes so widely spread, it seems fair to assume that the Tawny is by far the most plentiful of the British Owls.

The Tawny Owl feeds chiefly upon field-mice, voles, beetles, and occasionally upon birds. When Pheasants are being reared at the woodside, it frequents the coops, where it is commonly shot by the keepers. Although it cannot be acquitted of the charge of destroying game, this is still a questionable policy, for its visits are most probably due to the rats which collect about the feeding-pens at night. These vermin are dangerous neighbours for the Pheasant poults, and the Owl is the most efficient rat-catcher in existence. I once placed a pair of young Tawny Owls in an outdoor aviary which had become infested with rats and mice. At intervals through the night one could hear the thud of the pouncing birds on the wooden floor, and the terror-stricken squeaks of the victims. As Owls move through the air with the buoyancy of thistle-down, I was struck with the violence displayed. The birds themselves were probably disconcerted by the contact with a hard surface in place of the grassy hollows where the descent is usually made, but it became clear that their airily light forms are capable of a most fierce and forcible onslaught.

In common with the Tawny and Barn Owls, the Long-eared Owl is a resident species in Great Britain, and in appearance it is one of the most

striking. Standing on the dark branch of a fir tree, with its long, slender form perfectly erect, and watching the intruder with its strangely lustrous eyes, as though it would peer into his innermost thoughts, it becomes easy to see why the ancients selected this fowl as the emblem of some occult wisdom.

Although an inch or two less than the Tawny Owl, its straight, compact figure gives the impression of greater length, and this effect is heightened by the horn-like tufts upon its head, composed of seven or eight feathers an inch and a half in length, which the bird can raise and depress at will. The young have tufts of down where the ears appear, which fall away when the true feathers begin to grow. This Owl is with difficulty driven to desert its breeding site. If the first clutch of eggs be taken, it will usually lay a second, and even a third, at intervals of about three weeks. In the pairing season, the male bird has a curious habit of paddling with its feet, ruffling its feathers, and cooing after the manner of a pigeon.

The Long-eared Owl does not hoot and is usually silent, save for a short, snapping sound, which is also uttered when the bird is on the wing. Strictly nocturnal, it spends the day in deep woods, especially in fir-woods. In suitable localities, where deserted nests are easily found, many pairs may be discovered nesting in close proximity.

The Short-eared Owl is mainly migratory. Large numbers visit these islands in October, availing themselves, it would appear, of the same atmo-



YOUNG LONG-EARED OWL

spheric conditions as the Woodcocks do, which they usually precede. They are thus known to sportsmen as the Woodcock Owls. But although the Short-eared Owl is a true migrant, some pairs still remain in this country to breed, and it is believed that, before the draining of certain of the fen districts in the East of England, their nests were comparatively common. As the Raven is one of the earliest birds to breed in England, so the Short-eared Owl is one of the latest; young birds, unable to fly, being found in mid-August.

The distribution of the Short-eared Owl is very wide. It occurs in varying numbers in every county in Great Britain, and, at one season or another, inhabits the whole continent of Europe and the greater part of Asia.

The food of the Short-eared Owl consists chiefly of field-mice and beetles, and occasionally, like others of its family, it takes small birds. One of the matters of marvel in Nature is the way in which birds are attracted to distant areas in which the food-supply has become suddenly and unexpectedly augmented. The case of the Vulture is well known. In the trackless desert some worn-out beast of burden falls dying in the sand. A moment before the vast sky-space might have been swept vainly for the sight of any living thing. Now, almost before the trappings can be torn from the stricken beast, a dark speck is seen in the far-distant horizon, followed by another, and yet another, and in a little while the air is filled with the wheeling wings of the Vultures waiting for their feast. Again, amidst the hills of Sutherland, one may fish for half

a summer's day, and the lonely loch is deserted save for some wandering Diver, or Sandpiper, flitting from stone to stone. But at luncheon-time one chances to throw a few pieces of biscuit into the still water at one's feet. Soon, far over the hills, a tiny gull is seen. It sails over the surface of the loch, steering a straight course, and, after a few preliminary circles, it descends upon the food. It is followed by others of its clan, and, in a little while, half-a-dozen, or more, are clamouring in the air.

By what power, occult or otherwise, the birds are guided it is impossible to guess. It certainly seems that any explanation based upon the ordinary faculties, of sight and smell, is untenable. The phenomenon is repeated in the case of the Short-eared Owls. From time to time, certain serious inroads of field-voles occur. As far back as 1580 and 1581, there is a record of "a sore plague of strange mice," which devastated a whole countryside in Kent and Essex. The same thing happened in Norfolk, and later in Gloucestershire. Quite recently, an irruption of these small pests, ruinous to the farmer, occurred in Dumfriesshire. Mr. Richard Bell, of Castle O'Er, gives a graphic account of the advent of the strange invaders; how they swarmed in field, bank and hedgerow, destroying every blade of vegetation in their course. But here, too, came the Owls, in numbers never before known, to do the work which all the available shepherds and their dogs were quite unable to effect.

One peculiarity of the Short-eared Owl, it is



BARN OWL.

said, is that it is rarely known to perch on trees. I think this statement must be taken with some qualification. That the bird prefers open spaces, and does not systematically take to the woods, is true. It is commonly flushed from rough bent-grass, and even from turnips, and year by year, when Grouse-shooting, I have seen it rise from the open heather. But often, when the wooded ravines in the sea-cliffs near Flamborough are beaten for Woodcock, this Owl is found in the trees. On one occasion I saw three driven out, one of which, after taking its desultory course over the tree-tops, alighted on the bough of a low ash.

Owing to its conspicuous colouring, and to the fact that it lives in or about places occupied by man, the Barn Owl is perhaps the most familiar of its race. In addition to farm-buildings, it sometimes affects hollow trees and clefts in rocks or walls, but it has won its sombre reputation, in poetry especially, by reason of its affection for ancient, ivy-covered belfries and deserted ruins generally. Here, with its nocturnal flight and weird, eldritch shriek—the Barn Owl rarely hoots—it supplies the touch of living mystery which the poet instinctively feels to be fitting. The moping Owl which complained to the moon in Gray's *Elegy* was probably a Tawny.

The Nightjar is the only truly British representative of its family, although two other species—the Red-necked and the Egyptian—are said to have occurred in this country.

Except for its nocturnal habit, it has little kinship with the Owls. It is a late migrant from Africa, rarely reaching England before the middle of May. Its eggs, two in number, and mottled with brown on a white ground, are laid upon the bare heath, and, as the illustration shows, there is little or no nest of any kind. What virtue the Nightjar finds in the particular spot which it selects would be hard to discover; yet, none the less, it returns year after year, if undisturbed, to rear its young on the same featureless patch. When scared from its eggs, it flies but a little way and drops to the ground, where its variegated dead-fern-like plumage harmonizes so completely with the dry vegetation around that it becomes well-nigh invisible.

A true fly-catcher, it is armed with curious bristles at either side of the bill, which aid it in arresting the flight of insects on the wing.



NIGHTJAR ON NEST



YOUNG NIGHTJAR TWELVE DAYS OLD

BIRDS OF THE HOMESTEAD

THE little white house stands back from the road, and may easily be passed by unobserved. Even from the hill it is not readily made out, for it is set in thickly-growing trees, and in summer only the red tiles of the roof can be caught through the leaves. It is remote from other dwellings, but from the knoll amidst the beeches one can see the blue smoke rising from the village, and, here and there, gain a glimpse of the river as it winds through the valley. On the trellised face of the house Virginian creepers, which turn to a deep red in autumn, grow freely, and a climbing rose-bush overhangs the door. In front the lawn, deeply shaded by big trees, is skirted with banks of old-time flowers—snapdragon, mignonette and musk—which grow in tangled masses untended from year to year. At first sight, these appear to limit the little domain, but one may wander far on the mossy paths, even through forest trees where bluebells and daffodils grow wild in the long grass, before a boundary is reached.

The birds are never molested here, and a cat is treated with the scant courtesy which the shepherd accords to the ravening wolf, so that the more familiar races have come to regard it as a home, and even the wilder or rarer species relax something of

their circumspection when they approach its precincts. Summer by summer, the Spotted Flycatchers nest in the trellis, and dart from their perch on the railings of the lawn. Blackbirds and Thrushes rear their young in the untrimmed hedges or in the great tree-like clusters of rhododendrons. In the broken, mossy wall which skirts the orchard, the Titmice and the Robin build, and from morning to night the Chaffinches and the Willow Wrens are to be heard singing in the fruit trees.

Behind the house the ancient barns are roofed with turf, where moss and various grasses spring, amidst which the Pied Wagtails run, snapping flies, as in a field. The trees fall back here, and the little farmstead, with the stackyard beyond, lies open to the sun. In April the Swallows come, their glossy plumage shining as they dart through the half-opened door into the dim interior of the shed, and a colony of Martins have a well-nigh unbroken row of nests beneath the southern eaves.

But all these are the more familiar guests, and a deeper interest is aroused when the barred plumes of a Spotted Woodpecker can be caught amidst the taller trees, or a Nuthatch be seen moving spirally about the lower bole of the beech. Then to the little kitchen garden, hedged around with thick hawthorns, the wary Hawfinch steals at times, and the Bullfinches come regularly to feed and to build their small nest in the sprays of holly in the fence.

In early spring the belt of fir-trees which shelters the garden from the road, appears black in contrast with the light, vivid green of the occasional larches in their midst, and here, tempted by the seclusion—

for he is by no means a homestead-loving bird—the Tree-sparrow appears at times. He may be distinguished at once from the common form by his smaller size and by his chestnut head and black-and-white cheek and throat, alike in both sexes. He has nothing of the confident manner which marks the House-sparrow. Although an active, lively bird, he is rarely seen apart from the dense plumes of the topmost fir-branches, and, wherever he may be, he seems to shrink instinctively from observation.

In England the Tree-sparrow usually nests in the hole of some remote tree, but, curiously enough, in France it appears to have adopted the House-sparrow's habit of frequenting human domiciles and building beneath their eaves. Mr. W. P. Pycraft recently put forward a theory that at one time all birds nested in trees, supporting this view by the statement that the oldest known fossil-bird—the *Archæopteryx*—was a tree-builder, and suggesting that the first cause of birds nesting elsewhere was overcrowding.

Even if not altogether borne out by the facts this is an interesting speculation, and there is certainly reason to believe that nest-building is in a state of evolution. The case of the Sparrows seems to bear upon this point. It may fairly be inferred that at one time, when human habitations were few, the House-sparrow constantly built in trees, a habit by no means abandoned to-day; that by degrees houses and other buildings were seen to provide more suitable sites, and that, as the ages went by, these were more and more resorted to, until at length they became, as we find them to-day, the

birds' more habitual nesting-places. The Tree-sparrow would appear to be following these evolutionary lines more slowly; still maintaining the ancient tree-building habit in England, but adopting the more modern method on the Continent.

In the corner of the orchard, just through the gate, is an old gnarled apple-tree. There is a large hole in the upper trunk, which for many years has been taken possession of by the Starlings. Here they come in the early spring to chatter in the sunshine on the dead boughs above the hole, or upon the rim of the chimney-pot, when the notes of many familiar birds are introduced; the plaintive cry of the Golden Plover, or the clear bell-like "U-chru—U-chru," of the Great Tit, the sounds being accompanied with a castanet-like rattling of the wings. When the hen is sitting upon the four or five pale-blue eggs laid in the dark recess, there is silence for a little time, soon to be broken by the incessant clamours of the young. Now, from earliest dawn to eventide the parents labour without a moment's respite. So regular are they in their movements, to and fro, that their flight appears to create a straight black line ruled in the air, and along this they beat their way, appearing and disappearing above the topmost sprays of the apple-trees at exactly the same place. There are meadows with long, lush grass near at hand, and the active, dark forms can be seen threading the herbage here, or, indeed, busily moving upon the lawn itself. Now they go much further afield for their food, and from the little summit by the beeches one can easily trace them through the glasses,



STARLING AT NESTING HOLE IN APPLE-TREE

a quarter of a mile away, steadily making a bee-line for the apple-trees. But so great is their dispatch that, however far they may travel, one or other of the parents is seen once in every five minutes at the side of the nesting hole, to be greeted by hungry welcomes from beneath.

The Starlings are the noisiest of birds, making not the slightest effort to conceal the whereabouts of their family; indeed, the loud "spate, spate" of the old birds at the moment when they alight, and the vociferous responses of the young, render the nest a thing impossible to be overlooked.

Fortunately for the Starlings, the recess selected is constantly beneath the eaves of houses, and in rocks and old castles, as well as in decayed trees, and so the eggs and nestlings are beyond the reach of prying hands. This, taken in conjunction with the fact that the bird is double-brooded—a circumstance often questioned, but which is certainly true in many cases—has probably helped to render the Starling one of the most abundant birds in England.

The families amalgamate in the late autumn, and at these times the flocks amount to incredible numbers; some observers stating that at their roosting-grounds in reed-beds and evergreen plantations, they have been known to assemble in millions, breaking down and destroying, by their crowding weight, the boughs or stems upon which they seek to rest.

In addition to the many familiar places, the Starling often builds in the bases of Rooks' nests, in the deserted homes of Magpies, and, more rarely,

in rabbit-burrows. One instance is recorded of a nest built quite in the open, against the trunk of a small fir tree.

England is sometimes visited by a race of Starlings on migration which differ largely from the commoner type. These birds are distinguished by the hues of the head and neck, and are known as Purple-headed Starlings.

As the winds bare the branches of the apple-trees and the hawthorns, and autumn sinks into winter, the bird-life about the little homestead changes day by day. The Swallows and Warblers are gone, and the hard rattle of the Fieldfare is heard in their place, as the birds cross the frozen valley to alight on the black boughs of the beeches.

About the snowy stackyard, the Yellowhammers and Greenfinches come to join with the ubiquitous Sparrows in wresting a scanty meal from the clearings where grain may have fallen.

The Hedge-sparrow, too, true to the homestead in winter and summer alike, is never far away, and in the snow-time may always be seen flitting about the stick-heap, or, aloof from the ruder finches, moving modestly amidst the beaten straw.

This little bird shares with the Robin, Stonechat and Golden-crested Wren the distinction of being one of the few members of the Sylviidæ which are resident in England throughout the year. Still, observation shows that even this species—the most domesticated and restful of all—is driven by the strange migratory instinct to venture forth across perilous seas, upon a journey which, season by season, proves fatal to countless myriads of the

feathered tribes. Although so many Hedge-sparrows are with us in summer and winter alike, and may be seen at any season moving unobtrusively in lowly places about the homestead, with that slight characteristic shuffle of wing from which one of their many local names is derived, they are none the less migrants, and in September and October vast numbers arrive on the East Coast annually, especially on the shores of Yorkshire and of Lincolnshire.

The plumage of the Hedge-sparrow is of the soberest hue. Even in the nuptial season, when all Nature arrays herself in her best, the male Hedge-sparrow merely adds a touch of blue and silver to his grey side-plumes; so faint, indeed, that it is only on the closest inspection that they may be observed at all.

The Hedge-sparrow is one of the earliest birds to build. Its nest is placed in a still leafless hedge, or in the recesses of a stick-heap in some neglected corner of the cottage garden. It is one of the delights of early spring to peer through the interstices of the black, lifeless boughs, and to see, gleaming below, the clear, delicate blue, unmarred by spot or stain, of the eggs which the little Hedge-sparrow has laid undeterred by its wintry surroundings.

In habit, as well as in plumage, the Hedge-sparrow is one of the least obtrusive of birds. Although, unlike the Sedge Warbler or the Wood Wren, it never avoids the presence of man, nor shrinks hastily into the thicket, or the recesses of the wood, at his approach, it is none the less reluctant to court observation. It sidles modestly about

the cottage door, or on the moist earth amidst the gooseberry-bushes, picking up its imperceptible food, and, when alarmed by some disturbance, it flies but a little way, soon returning to its homely feast. Rarely, in its most reckless outburst, will it aspire much higher than the gate-post; or, if it ascends to the lower branches of a tree, there to pour out its little love-song, it almost immediately drops down to the hedge where its mate is moving, mouse-like, as though quite surprised at its own audacity. Never, in my experience, has a Hedge-sparrow ascended to the topmost bough of any tree whose height could be deemed at all considerable.

Many of the older writers regard the Hedge-sparrow's nest as the one most commonly selected by the Cuckoo for the foisting of her egg. So far as my knowledge goes, the Meadow-pipit¹ is far more frequently forced to become the foster-parent of this monstrous charge. Still, the Cuckoo's egg is constantly found in the Hedge-sparrow's nest, and the little brown birds may be seen in active attendance on their abnormal nestling. The rearing of a young Cuckoo is a severe strain upon these small warblers, and they appear to grow thin and worn when engaged in their inappropriate labour, even although they escape the fate attributed to them by King Lear :

"The Hedge-sparrow fed the Cuckoo so long,
That it had its head bit off by its young."

¹ Mr. G. W. Murdoch, the naturalist Editor of the *Yorkshire Weekly Post*, to whom I am indebted for the revision of these pages, has, however, records extending over forty years, and these show a great preponderance for the Hedge-sparrow.



HOUSE-SPARROW



HEDGE-SPARROW ON NEST

Shakespeare, too, is one of the authorities who has assisted, in other passages, in fastening the most unfitting title Sparrow upon a bird which is quite without any of the qualities of the "avian rat." Recent writers have attempted, in justice to an in-offensive bird, to remove an epithet which, in view of the hostility that the true Sparrow brings down upon himself, must be regarded as injurious, in the same way that the name "rat" is hurtful to that most harmless vegetarian, the water-vole. They have suggested that the word Sparrow should be replaced by Accentor. This affix, in its turn, has been challenged on the ground that the bird is not an Accentor, and so this most un-sparrow-like warbler remains the victim of an old-time misnomer, which science appears to lack either the courage or the power to rectify.

One peculiarity of the Hedge-sparrow, noted by Yarrell and others, is that it is liable to a singular disease, consisting of a tubercular excrescence upon the eyelids, about the base of the bill and on the feet. This fact is worthy of consideration, for any external disorder is rare in the case of wild birds, although by no means uncommon in poultry, pigeons and other domesticated species.

The Wren, too, is a bird of the homestead. Not only is it familiar for its way of flitting, with a sharp little cry, from one's feet, to alight pertly with cocked tail and bowing breast, upon the first coign of vantage, but it also attracts attention by its habit of singing freely in the very depth of winter. Although it may remain about the garden

and the stackyard throughout the year, few birds have less regard for locality in their choice of a haunt. The Wren was long included with the warblers, but it has no exclusive preference for woodland and coppice. Indeed, it may be found anywhere. About the farmstead, or in the deeps of the ravine; at the cottage door, or amidst desolate rocks by the sea; starting before the setter's nose on an Argyleshire mountain, or flitting from stone to stone on a south-country trout-stream; no matter what its environment may be, the Wren appears perfectly contented and at home.

The nesting habits of the Wren have afforded matter for much discussion. The site is commonly some mossy wall or bank, but more eccentric places are often chosen. One photograph, for example, shows a nest in an old boot. But the interesting feature is that near the nest occupied by the sitting bird, a second, less carefully finished, is frequently found. Many explanations have been put forward. The popular belief is that it is the "cock's" nest; a refuge to which the male bird may betake himself when the true home is required for the crowded nestlings. Personally I believe this view to be the true one. The species appears to be extremely susceptible to cold. On winter nights, when most small birds rest comfortably in tree or hedgerow, Wrens are found, sometimes in considerable numbers, huddled together under thatched roofs, and in the recesses of hay-stacks, plainly for the sake of warmth. They are also often found roosting in conservatories and outhouses. It is highly prob-

able, therefore, that the male may build a shelter for himself when the hen is sitting.

Nor is the habit altogether peculiar to the Wren.¹ A pair of House-sparrows once built a nest in a cork-covered flower-box beneath my window. In a tree, a few yards away, a second nest was built. Day by day I saw the cock bird enter it, but never the hen. Yet the cock would constantly flit across to the box where the hen was sitting, and, later, he assisted in rearing the brood.

Like the Redbreast—its traditional mate—the Wren has been the subject, and often the victim, of many ancient superstitions. The custom, with curious formalities attached, of “Hunting the Wren” upon New Year’s Day, which is still observed in certain places, is, says Mr. G. W. Murdoch, of purely Totemistic origin, and carries the mind back far beyond the pagan rites and the ceremonial of Druidism.

Two species of Wren are believed, by some writers, to be found in Great Britain. In St. Kilda, a form occurs somewhat larger and darker than the commonly known bird, and to this the distinctive name, St. Kilda Wren, has been applied. That the differences, however, of size and plumage amount to more than a mere modification of the familiar type, is, to say the least, very doubtful. Dresser, the joint-author of the great work, *Birds of Europe*, has stated that the supposed points of difference are all to be found in specimens from

¹ The Waterhen also often builds an additional nest in close proximity to the one finally occupied.

various parts of Europe, and that the bird is not worthy of specific rank.

One other bird of the homestead, the most typical of all, remains.

It may fairly be said that of all birds none is so well known as the Robin. Go where one will in England, rest but a little while wherever trees cluster about the village homesteads, peer into stackyard, orchard or garden nook where the pea-sticks are piled against the ivy-covered wall, and, sooner or later, the familiar Redbreast will be seen, as it flits to some prominent perch, often drawing nearer to the intruder, as though seeking companionship.

But it is not in mere point of numbers, though few birds are more generously distributed, that the Robin stands so near to the human race. It is his sheer friendliness; his obvious desire to be taken as part of the home-life; to share with the children and the chickens something of man's affection and solicitude, that his name has come to be a household word. Who can wonder, therefore, that Robin Redbreast has acquired some familiar domestic name in nearly every country in Europe, and that in lands colonized by Englishmen where he may not exist, his title should be bestowed upon any kindly-disposed bird with a red breast which may come to hand, as a token of loving remembrance?

Yet although its appearance and its habits are so well known, the life-history of the Robin presents problems to the naturalist which are by no means easy of solution. It has been seen that its numbers

vary considerably in many localities at different periods of the year. The seasonal movements of any resident species are rarely easy to follow, and often impossible, in our present state of knowledge, to account for. Yarrell states that "towards the end of summer the old birds, for the most part, withdraw from ordinary observation, betaking themselves to the shelter and comparative privacy which the luxuriant foliage of the season affords them, while, food being plentiful and obtained with little exertion, these conditions favour their successfully undergoing the annual moult—one of the severest strains to which bird life is exposed. This process completed, they return towards autumn to their familiar haunts, which, in the meantime, have been occupied by their progeny, the young of the preceding spring. The old birds, then in renewed vigour, proceed to engage the young, and each lawn and thicket becomes a battlefield; but, so far from the vulgar belief (that the young birds destroy their elders) being well founded, the young, in fact, are almost invariably worsted, and possession remains with the victorious parents. What becomes of the defeated is not exactly known, but it may be plausibly suggested that, driven away from the place of their birth, they join the numerous bands of allied species which are then seeking more southern regions, and help to swell the stream of migrants then setting forth steadily to warmer climes."

That many of these birds actually leave England is known, and it also seems clear that the accession and diminution of numbers in given

places within Great Britain, is also due to the movements of these displaced wanderers. In addition to this, heavy and long-continued snow drives the Robin from its more remote haunts, and the birds then congregate about the homesteads, where food is more easily to be obtained.

In regard to the conflicts in which Robins engage, it would be interesting to know the exact extent of the evidence upon which the high authority just quoted bases his conclusion that the battles usually take place between the older and younger birds. It has long been a well-observed fact that Robins appear to parcel out the countryside into definite tracts, each division being tenanted by a single pair, and that the cock bird is always prepared to resent to the uttermost any encroachment on his territory. This characteristic may be readily tested by placing a caged Robin, or even a stuffed specimen, within the border-line of one of these domains. A single bird at once appears and attacks the intruder with the utmost ferocity, beating with ruffled plumes against the bars, utterly careless of the limed twigs which the bird-catcher may have set for him. When the first bird is taken, no other is forthcoming, at least for a considerable time, when the division may be presumed to have found a new occupant. It is therefore highly probable, as Yarrell states, that a younger generation, seeking a settled location, are the more frequent encroachers; but it is none the less true that the cock Robin in possession is often called upon to give battle to a rival, without any distinction of age.

This habit of attacking an invader of its own

species is also noticeable in the Chaffinch, but this usually occurs in the breeding season only.

The Robin is one of the earliest birds to breed, and its nest is usually placed in a bank or broken wall, but more eccentric sites are constantly chosen. Every season brings an account of nests found in the pocket of a disused coat hanging in an out-house, in an old hat, or boot, within the shade of a broken lamp, and so forth.

The eggs are five to seven in number, and are streaked and blurred with red on a bluish-white ground. The young are of a mottled brown hue, and show little or no trace of the red breast of adolescence before the first moult.

The distribution of the Robin is general throughout Europe, but in many countries it is known as a migrant only. It occurs in the North up to a latitude of 68°.

The song of the Robin is neither powerful nor varied, but it has a peculiar sweetness and charm, which may be partly derived from the circumstances amidst which it is uttered. On a dreary autumn day, when the leaves of the dying summer are drifting to the earth, and a desolate wind is sighing through the upper branches, already bare; at a time when all other warblers are silent, or have disappeared with the decay of the season's prosperity, there, quite alone, sits the little Redbreast, giving the world what cheer he can, all unresentful of the days when his plaintive notes were neglected and overborne in the ringing chorus of the coppice. Many legends have been woven about him: that, in pity, he covered the Babes in the Wood with the

only counterpane he wotted of; that his breast is dyed eternally with the blood of the Crucified, as he tried to withdraw the cruel nails.¹ But it is for his autumn song and for his coming, with bright eye and cheery bearing, close to the nursery window, when the ledge is deep in driven snow, to ask for his reward, that the children love him, and that his name is uttered with a curious gentleness whenever the wayfarer in distant lands speaks of home and of Christmas.

¹ A legend which also refers to the Crossbill.

BIRDS OF THE WOODLANDS

WARBLERS

UNDER this heading may be roughly grouped a large number of most interesting British birds. It is chiefly to the warblers that we owe the music which vibrates through the spring woodlands and renders England, in this respect, favoured beyond all other lands. American naturalists have claimed that their native birds, as a whole, rival those of Great Britain in power and variety of song. Mr. John Burroughs, for example, draws an interesting comparison between the songsters of the two countries. He claims that America possesses thirty-seven true singing birds as against twenty-three which he grants to the Old Country. But even he admits that although in New England the bird-voices that join in the spring chorus are more numerous, they are, none the less, more fitful and intermittent, more confined to certain hours of the day, and less loud and vivacious. The American finches, including the Song-sparrows, Indigo Bird, Purple Finch, Scarlet Tanager, Rose-breasted Grosbeak and Cardinal Bird, he believes to be superior to ours, and he lays special stress upon the music of the Wood and Hermit Thrushes, but he at once agrees that our Larks and Warblers are unmatched in the world.

Still, even if it be true that the songsters of America equal those of Great Britain—and few unbiassed observers would be inclined to admit it—it is still a noteworthy fact that these tiny islands compete so successfully with vast continents in providing a home for all that is best and sweetest in Nature's minstrelsy.

This is not all. Not only have we the pre-eminent Nightingale, the Skylark, Woodlark, Song Thrush, Blackbird, Garden Warbler, Blackcap, Sedge Warbler, Willow Wren, Grey Linnet and a host of others to scatter their sweet notes broadcast amidst woods, gardens and gorse-strewn commons alike, but in this country, nearly all birds of harsh and discordant voice are, for some reason, absent. The loud, meaningless chatter and jarring cries which disturb the glades and forests of so many lands, are here almost unknown. Whoever would hear the true music of birds must come to England.

The British Warblers differ from each other in important respects—in modes of nest-building, in song, and largely in plumage; but they have all marked characteristics in common. They are, for the most part, summer migrants; reaching these shores chiefly in April and departing before the leaves have fallen from their beloved trees; they are all musical in differing degrees; they are mainly insectivorous in diet, and they are all harmless; for the small depredations amongst the fruit bushes, principally the currant and the raspberry, which can be laid to the charge of the Garden Warbler and the Blackcap, cannot be treated seriously.

The British list of the Sylviidæ—to give them their scientific title—includes, according to Yarrell, thirty species. Many of these are, of course, of extremely rare occurrence.

The Alpine Accentor, for example, nearly akin as it is to the familiar Hedge-sparrow, has been known to appear in Great Britain on about twelve occasions only. It is a form not uncommon in Central and Southern Europe, especially in the Alps and Pyrenees, and is distinguished from the truly British species by a reddish mark on its sides resembling that of the Redwing. Unlike the Hedge-sparrow, it does not perch upon trees or bushes, but is usually seen upon the ground or on rocks, and it is remarkable for its constant tameness, being apparently regardless of man.

The Bluethroat, again, a delightful little warbler, whose upper breast is of ultramarine blue, with a light-coloured spot in the centre, is of almost equally rare occurrence. It is well known in Continental Europe, but its plumage varies in different localities—a central red spot appearing upon the blue shield, in place of the white or bay-coloured one. This has given rise to the opinion that two or more species exist. Years ago, the killing of a Bluethroat upon British soil brought down upon the vandals implicated a most scathing denunciation from Ruskin.

The Black Redstart, a dusky variant of the common English form, although its occurrences are now too numerous to quote, is still, except in certain localities—the coasts of Devon, Cornwall and the Isle of Wight being the most favoured, an extremely

rare bird. It is well known in various parts of Europe, and is conspicuously common in Palestine. It has the distinction of being one of the few members of the Sylviidæ which are winter visitants to Great Britain.

The Rufous Warbler can only by courtesy be treated as a British bird, for the one or two examples which have been identified were merely wind-driven waifs from the South. This warbler is, with the exception of the Great Reed Warbler, the largest of its race, measuring about seven inches, and is described as resembling a pale-coloured Nightingale, with white tips and black spots on a broad fan-shaped tail.

The Icterine Warbler, although it is common on the Continent almost within sight of our shores, has only been found in England on about eight occasions. It resembles the Willow Wren in appearance, but differs from it entirely in the manner of nest-building. In place of the dome-shaped nest secreted in the tangled herbage of the shrubbery or in the recesses of a mossy bank, the Icterine Warbler's nest is open and cup-shaped, and is placed in the branches of a tree at some distance from the ground. The song of this species is especially loud and melodious.

The Orphean Warbler in appearance has much in common with the Blackcap, the upper part of the head being of a deep black hue. It is, however, larger in size. The title Orphean would appear to be a misnomer, for its song is described as slight and by no means striking. Its distribution on the

Continent is erratic, and two or three occurrences only are recorded for this country.

The Yellow-browed Warbler is also an extremely rare bird, a few isolated appearances only having been noted for the three kingdoms. It is little known on the Continent, although Gätke states that it occurs in small numbers annually on migration in Heligoland. In appearance it has much of the character of the Golden-crested Wren, the distinguishing golden-orange head-band of the latter being replaced by a light lemon-coloured streak above the eye. The nesting site and eggs of this species were first discovered by Mr. W. E. Brooke near Gulmerg in Cashmere, in the spring of 1871.

The Nightingale is a true summer visitor, the males reaching England about the middle of April, ten days before the arrival of the females, and departing in September. In plumage it is not conspicuous. The upper surfaces are of a uniform brown, and the throat is a greyish-white which grows darker on the breast. Its length is about six and a quarter inches.

The nest is built in a hedge or in thick under-wood, and in England is placed in the lowest branches or in the tangled grass beneath. In Spain, Saunders states that he has found it in cypress and myrtle trees, fully five feet from the ground. It is loosely constructed of dead leaves and coarse grass lined with root fibres. The eggs are from four to six in number and are of a deep olive-brown. If, to use Tennyson's thought, "the music

of the moon is hidden in the plain eggs of the Nightingale," it may be worthy of note that the same plain olive hue is repeated in the shell which enshrines the music of the sun; for in point of colour the eggs of the Nightingale and of the Skylark are singularly alike.

The young are hatched in June, and from this time forward, as in the case of so many birds, the song of the parent practically ceases.

The haunts of this bird in one of the southern counties are described by Richard Jefferies as follows:—

"The slender birch and ash poles are hung with woodbine and wild hops, both growing in profusion. A cream-coloured wall of woodbine in flower extends in one spot, in another festoons of hops hang gracefully, and so thick as to hide everything beyond them. There is scarce a stole without its woodbine or hops; many of the poles, though larger than the arm, are scored with spiral grooves left by the bines. Under these bushes of woodbine the Nightingales, when they first arrive in spring, are fond of searching for food, and dart on a grub with a low, satisfied 'kurr.' The place is so favourite a resort that it might well be called Nightingale copse. Four or five may be heard singing at once on a warm May morning, and at least two may often be seen as well as heard at the same time. They sometimes sing from the trees as well as from the bushes; one was singing one morning on an elm-tree branch which projected over the road, and under which the van drivers jogged indifferently along. Sometimes they sing from the dark foliage

of the Scotch firs. As the summer wanes they haunt the hawthorn hedge by the roadside, leaving the interior of the copse, and may often be seen on the dry and dusty sward."

The distribution of the Nightingale in England is most erratic. That a line drawn across Yorkshire should roughly define its northern limit is not surprising. Climatic and other considerations might be put forward to explain its tendency to cling to the south. But why are the south-western counties, the lovely glades and coppices of Cornwall and West Devon, for example, rich as they would seem in all that goes to make the Nightingale's most favoured environment, so severely tabooed by a bird which arrives in its thousands in each recurring spring upon so long a line of the southern coast? This is one of the recurring problems in avian history, of which no solution, based either on climatic conditions or on the ever-convenient food supply, appears to be forthcoming.

That the Nightingale has some deep-seated reason for its constancy to certain localities and its neglect of others, finds confirmation in the failure of all attempts to extend its range. It is recorded that Mr. T. Penrice obtained many birds from Norfolk which he liberated in his woods near Swansea, and Sir John Sinclair, in Caithness, succeeded in rearing large numbers, by placing the eggs procured from Surrey in the nests of Robins. In all cases the birds disappeared in September, never to return.

In Continental Europe the Nightingale is unequally diffused, being abundant in some localities, notably in parts of France and Spain, and

practically unknown in others. Its northern breeding range is limited—the neighbourhood of Copenhagen being given as the highest latitude at which eggs have been found.

It is not easy to speak soberly of the song of the Nightingale. In all questions relating to art, unanimous opinion is rare. The characters of taste are so diverse that they find of necessity matter for admiration in widely different objects. The supremacy which binds every critic, great and small alike, helpless to its chariot wheels, is obviously of the highest. It is the final test, and this test the song of the Nightingale has long survived. In the mind of the world it stands alone.

There is a mystery in the music of birds, a mystery which transcends all merely technical laws of harmony, which ceases to be a mere matter of volume and quality of note. Nature's appeals, her sunrises, snow-clad peaks, springing meadows and hushed woodland recesses, are made constantly through the single channel of the eye. As we listen to the Nightingale, we feel that another line of communication has been opened.

“Lord, what musick hast Thou provided for the saints in Heaven, when Thou affordest bad men such musick on earth.”

Izaak Walton's enthusiasm for “the airy creature which breathes such sweet sounds out of her little instrumental throat, that it might make mankind to think that miracles had not ceased,” is an all-pervading sentiment. It is possessed by poet and by ploughman alike.



COCK REDSTART AT NESTING HOLE



HEN REDSTART AT NESTING HOLE

Like the Nightingale, the Redstart appears to shun certain counties in the south-west of England. In West Devonshire and Cornwall, for example, it must be classed as a very rare bird. In plumage the male is one of the most beautiful of the warbler group. The bright ash-grey of the head and back when contrasted with the jetty blackness of the throat, renders the bird at once conspicuous. After the manner of the Robin, Spotted Flycatcher and others, the Redstart often chooses unconventional nesting places. A photograph shows a nest in a derelict tin bottle.

The Redstart is known in most countries in Continental Europe, and it breeds in high northern latitudes even as far as the North Cape. In Finland it is said to be the commonest of all the warblers. These birds are true summer visitants, arriving in England in mid-April and returning southwards in August or early September. The young are said to leave before the old. The song of the male is sweet, and forms a welcome addition to the woodland chorus, but is short and of no great power. It is usually uttered from some commanding position, the dead branch of a tall tree being often chosen.

In spring, when the opening leaves have spread a veil of green over the forest trees, and the earliest Swallows are skimming across the meadow, the attention is attracted by the flicker of a red tail as a small bird flits across the path through the wood. Unlike the Wood Wren, he does not instantly dive into the tangled recesses of the nearest thicket, as though fearing that a human eye should rest upon him even for a moment. Indeed, there is something

of the Robin in his manner, although he will by no means allow so near an approach. As he alights on the dead, drooping branch which overhangs the way, the full beauty of his black and ashen-grey plumage is clearly defined against the background of the wood. When he reaches his perch, however, he does not bend forward with the jerky movement characteristic of the Robin and the Wren. He remains motionless save for his tail, which quivers restlessly, moving horizontally like that of a dog, and in this respect he differs, I think, from all other birds. Sometimes he may be seen to dart from his bough and seize a fly in mid-air; but more often he drops quietly to the ground, where, amidst the herbage of the hedgeroad, or at the feet of the trees, he finds the insects on which he chiefly feeds.

The number of caterpillars, flies, spiders, ants and flying and creeping things which the warblers consume, especially in the nestling season, must amount to a vast sum. At this time the parent birds do not content themselves with picking up a single insect at a time; they continue to take them as they occur, until the bill is filled, when they bear them away to the hungry brood. Sometimes a single fly, or several, will be held for a long time, whilst others are being sought for. The manner of arranging the insects in the bill is well shown in the photograph.

Of the two Whitethroats which frequent England, the Greater is by far the more common. Although it is a bird by no means conspicuous in plumage, and shuns observation when approached,



WHITETHROAT FEEDING YOUNG

it usually makes its presence known, either by its eccentric movements in the air or by its loud and somewhat jarring song. The general colouring of the back and wings is reddish-brown, which merges into smoke-grey on the head and neck. As its name implies, the throat is pure white. The nest is usually placed in the depths of the tangled undergrowth which skirts hedgerows, in low bushes and amidst long grass and rankly growing weeds.

A true summer visitor, the Greater Whitethroat is, perhaps with the exception of the Willow Wren, the most familiar of the warblers from across the seas. Few birds are more intimately bound up with the summer life of green English lanes than the Nettle-creeper. In the gorse by the wayside, in the little nook by the wood, in the neglected hedges where the lush grasses, springing high, interlace with drooping bramble and honeysuckle, transforming the dank ditch into a leafy sanctuary through which the fiercest sunbeams barely penetrate; here in this little green world of his own, the Whitethroat lives. At first one is attracted by the quick, jerky note coming from the deeps of the hedge, but soon, as the eye searches the interstices, a glimpse of brown is seen moving furtively in the tangle of bough and leaf. But the small singer is too restless to remain long concealed. In a moment more, as though in a violent hurry, he bustles to the topmost spray, his crest raised and his snowy throat swelling with irrepressible song. Even now, swaying on the topmost pinnacle of spray, with every fibre of his being vibrating with the joy of

summer, his exuberance demands further expression. With a mad gambol, he tosses himself into the air still singing, and then drops back to the hedge, where the eye, still directed by protesting chirps and gurgling sounds, may follow him a little way, until at length he is lost in the endless labyrinth of leaf. Here, following the rule that when a bird's song is at its cheeriest incubation is in progress, the nest may be looked for. It is not easy to find, but as one proceeds to press back the rank vegetation, his little brown mate slips silently away almost from beneath the hand. Here is the nest somewhat loosely woven amidst the lower stems, and in its deep recess the stone-coloured eggs with their dusky freckling may be dimly seen.

It may be noted here that although the White-throat constantly uses the branches of the umbelliferous plants for a resting place, in my experience it shares with all other birds in a dislike for them as supports for the nest.

The Lesser Whitethroat may be distinguished from the preceding species not only by its smaller size, but by the distinct dark patch which extends about the eye. In place of the rufous hue, the head, neck and back are of a greyish-brown. The nest, too, is shallower, and is usually placed at a somewhat higher elevation. The eggs, four to five in number, are whiter than those of the Greater White-throat, and are boldly spotted with deep olive-brown. This bird is also a true summer visitor, and in general habits resembles its larger congener, the chief distinction being that it frequents the tops of



LESSER WHITETHROAT ON NEST

lofty trees, whereas the Greater is essentially a hedge-loving bird. Its song, too, is much softer, and has little of the insistent quality which compels attention. It is generally believed to sing later in the year than any of the summer warblers.

The Garden Warbler is another true summer visitor. After wintering in Cape Colony it travels through Northern Africa and Asia Minor, and reaches our shores somewhat later than most of its congeners, rarely appearing before the end of April. Like the Nightingale and others of the group, the males usually arrive from ten to twelve days before the females. In common with other great singers, the plumage of the Garden Warbler is inconspicuous. The whole of the upper surfaces are of a uniformly delicate brown, faintly rufous, save that certain of the wing-feathers are of darker hue margined with white. Above the eye is a lightish streak, and the throat and breast are of yellowish-white. The bill is comparatively short and thick, and in this respect it differs from all other birds with which it is closely allied.

The Garden Warbler is pretty generally distributed throughout England, although in common with certain other warblers it appears to shun the south-western counties, Cornwall in particular.

The nest is usually placed in low brushwood or in any tall and tangled vegetation to be found about the garden and shrubberies, as, for instance, amidst the peas and pea-sticks, and more rarely in the ivy of a wall.

As a musician the Garden Warbler stands third

on the list of the British Sylviidæ—the Nightingale and the Blackcap respectively claiming the first and second places. It is an active and restless bird, but, although seeming to shun observation, it has none of the skulking habits of the Grasshopper and Dartford Warblers. On the contrary, when alarmed, it usually takes refuge in the dense foliage of the higher trees. It is known to consume a certain quantity of the smaller kinds of fruit, but in view of the number of insects which it destroys it cannot be regarded as a foe to the gardener. In common with the Blackcap, which in many ways it resembles, the power and volume of its song at its best is really remarkable.

In plumage the adult male Blackcap, although its colours are delicately subdued, is still one of the most beautiful of the British warblers. The upper part of the head is jet-black, the edges sharply defined and the cheeks ash-grey, this colour merging into ash-brown on the back and wings. The under surfaces are of a fainter ash-grey, tinged as in the Whitethroat with a pale rufous hue at the flanks. In the female the black head is replaced by a brownish hue. Curiously unlike any other of the warbler family, the female Blackcap is distinctly larger than the male. It has been stated that the male Blackcap loses the distinguishing black crown in the winter and assumes the browner cap of the female. This, however, would not appear to be usually the case. The nest of the Blackcap is rather smaller and more compact than that of the Garden Warbler, and the site chosen is generally at a toler-



GARDEN WARBLER ON NEST

able elevation in one of the taller growing shrubs or in a hedge. Although this warbler is properly regarded as a summer visitor to the British Islands, it is not unfrequently met with in the depth of winter. Many of its occurrences in Ireland are recorded for this season, and Mr. Evans states it is to be found in the Isle of Jura in the Hebrides, all through the year, and that he believes it to be resident.

Like the Garden Warbler, the Blackcap is shy and restless, except in the nesting season, when each parent bird takes its turn in incubation, and it then admits of the nearest approach, especially in the case of the female. It frequents gardens, orchards and young plantations, and the fine quality of its song is universally recognized.

Few things strike the American naturalists more strongly than the performance of our three great warblers—the Nightingale, Blackcap and Garden Warbler. The army of small wood warblers in New England is far in excess of ours, but, for the most part, their song is faint and lisping, and bears a close relation to the size of the bird—Phœbe or Vireo—from which it proceeds. Here, on some bright May morning, when the elm and the oak are bursting into full leaf, the deep, low notes are heard for the first time, growing louder and more jubilant as the summer advances. The singer is not readily seen, for each of the three masters is content, for the most part, to pour out his strains from the depths of the sheltering leaves. The music falls upon the ear, now soft, and filled with infinitely tender modulations; now loud, with a sudden burst of melody

which makes the glade and hill resound; then sinking again into deep internal murmurs; yet in all suggesting a vast reserve of power held artistically in check. Here, surely, is not only a great singer, but, of necessity, a fairly large bird—at least thrush-like in size. No—the marvellous song dies down. A glimpse of sober grey is caught amidst the leaves, and soon a plain little bird, five or six inches in length, moves unobtrusively to the end of an outermost spray. For the American naturalist, the song of the Nightingale, and, in a lesser degree, of the Blackcap and Garden Warbler—followed by an appearance of the bird itself, is always something of a revelation.

The three small warblers—the Wood Wren, the Willow Wren, and the Chiffchaff—have so many characteristics in common, which set them apart from their congeners, that they appear to fall into a natural group. In size and plumage they are so much alike that the differences (in the case of the Willow Wren and Chiffchaff especially) can only be detected when the birds are carefully compared; they are all strictly insectivorous, never, after the manner of the Blackcap, Garden Warbler and others, making raids upon the fruit-trees, and they each build a domed nest which is placed upon the ground, and is disproportionately large in comparison with the size of the bird. On the other hand, in their notes and in certain of their habits they are widely dissimilar. For one who has once learned to recognize the monotonous insect-like cry of the Wood Wren; the bold, breezy challenge of



WOOD WARBLER AT NEST



WILLOW WARBLER

the Chiffchaff, and the sweetly plaintive carol of the Willow Wren, any confusion of the species would appear to be impossible.

Of the three, the Wood Wren is slightly the largest, its total length being $5\frac{3}{4}$ inches as against $4\frac{3}{4}$ for the Chiffchaff, and 5 for the Willow Wren. In colour, the head, back and wings are of a yellowish olive-green, and the throat and breast of a delicate sulphur-yellow merging into pure white beneath. One distinguishing mark is the bright-yellow streak above the eye, which, although it occurs in both the Willow Wren and Chiffchaff, is, in the two latter, slightly less clearly defined.

The distinctions between the Wood Wren and the Willow Wren are that the former is somewhat larger, has comparatively longer wings, and is greener above and more clearly white beneath. The difference between the Willow Wren and the Chiffchaff, on the other hand, lies in the fact that the Chiffchaff is slightly smaller, has obviously shorter wings, is less yellow in hue, and that the legs in place of the lighter brown are of a dark purplish-brown.

The nest of the Wood Wren may at once be distinguished from those of its two congeners by the fact that it is lined with hair and never with feathers. It is built on the ground, hidden in the tangled herbage on some slight slope at the feet of the forest trees, and generally in the least frequented part of the woods. It is a somewhat noteworthy fact that so many woodland birds, in choosing a nesting site, select the edges of clearings, or the banks on the roadsides, rather than the deeper recesses of the

wood itself. On a slight declivity bounding a path through an old plantation, along which many passengers took their way daily, I have found several Willow Wrens nesting at short distances in situations which rendered them liable to be disturbed by every passing dog, whilst many apparently favourable localities within the plantation itself were tenantless. It would seem, as in the cases of the Sparrow, the House Martin and the Rook, that these little warblers instinctively seek the proximity of man, and so willingly sacrifice the security of a deeper seclusion. The Wood Wren, on the other hand, claims no kinship with humanity. It spends its summer life in the summit of the loftiest trees where the sounds of a work-a-day world can reach it but faintly, and its little brood is reared upon some remote bank amidst the wood-tangle and the bluebells, where footsteps, other than those of the rabbit or the pheasant, rarely come.

If it were not for its distinctive note the Wood Wren might easily be overlooked even in places where it occurs most commonly. The Garden Warbler and the Blackcap, reticent as they may be, come at times into the open, and may be seen upon the ground or upon some low exposed bough of the apple-tree. The Wood Wren is rarely so seen. It is when wandering in the older woods or in the avenues where the mighty beeches and elms, standing far apart, tower to the sky and intermingle their green branches across the way, that the first intimation of its presence reaches us.

From the loftiest summits the cry comes—"chit, chit, chit, chit, chitr, tr, tr, tr, tr, tre," now pausing

for a little while, to be repeated again and again with the same brief intervals intervening; a quivering, monotonous little song, yet expressing the very spirit of the serene heights and leafy solitudes amidst which the little warbler takes his devious way.

Standing far below on the carpet of fallen leaves, and with the great boles rising on every hand, one may gaze long into the maze of leaf and branch before a glimpse of the singer can be gained. Following the sound from spot to spot, one seems to pursue a mere wandering voice, but at length where the trees grow thinner a fluttering of tiny wings may be caught. A single bough stands clear against the sky, and here the Wood Wren alights. Quietly it takes its course along the slender spray, now pausing to utter its tremulous notes, which are accompanied by a sympathetic quivering of wings and tail; now becoming silent as it explores each leaf and twig for its imperceptible food. A moment later it flits into the deeper woods and is seen no more.

It is noteworthy how many country people—woodmen and others—when questioned, have no knowledge whatever of the size and appearance of this bird, whose notes they have heard in the trees above their heads, summer by summer, from their earliest childhood.

The Willow Wren is the most familiar of the summer warblers, not merely by reason of its greater abundance, but because of its perfect freedom from the shyness which marks so many of its tribe. In

plumage, the head, back and wings are of an olive-green hue, and the throat and breast yellowish-white merging into almost pure white beneath. Above the eye is a yellowish streak. Its nest is practically identical with that of the Chiffchaff, and the large, dome-shaped mass is lined with a cosy bed of soft curling feathers, many of which have been brought from long distances. This nest formation has given rise to two local names—Oven-bird and Feather-poke—which are applied to the Willow Wren and Chiffchaff indiscriminately. The nest is placed sometimes upon level ground amidst the grass and undergrowth of plantation and shrubbery, but more frequently upon some bank overgrown with tangled herbage, which skirts the country lane or the path through the wood.

Mr. Metcalfe states that he has found the nest in thick bushes two feet from the ground, and on one occasion in a hole made by a Marsh Tit in a gatepost. The photograph shows another unusual circumstance—a Robin's old nest in a brick wall five feet from the ground appropriated by a Willow Wren. This nest was re-lined and domed over by the newcomer. Mr. Metcalfe remarks that the Robin had already reared her brood that season in the same site, and that the spring was so winter-like that he had twice cleared away the snow from the nest when the Redbreast was sitting. The exceptional severity of the season may account for the Willow Wren's departure from its usual habit.

As the seasons imperceptibly merge one into the other, the advent of each is marked by a visible sign,



UNUSUAL SITE FOR A WILLOW WARBLER'S NEST—IN A BRICK WALL
FIVE FEET FROM THE GROUND

usually by some flower or bird. A day arrives when the tardiest tree is covered with leaf; when the Swifts are soaring in the cloudless sky and the Corncrake calls from the meadow; then we say, careless of the calendar, that summer has come. Soon now the fields are swept bare of lush grass, and the corn ripens to the harvest. Still it is summer, for the Swallows are flying high, and the later roses are hardly yet coming into bloom; it is only the earlier singing-birds that are hushed in the wood. No; roses and Swallows notwithstanding, the summer is gone. A Robin from a barely yellowing bough proclaims the autumn.

But the snowtime, at least, is as yet far away. This late October day is warm as in June. Then, across the North Sea come the Fieldfares, and their sharp rattling cry, heard high in the air, is the warning that they are bringing winter on their wings. Later, the countryside is black and lifeless, save where the snow flecks the dull green of the larches, or a belated Rook drifts in the sky. But look more closely; already, in sheltered places, the snowdrop and aconite are peeping from the earth, and in a little while we may look for the Wheatear flitting again from clod to clod on the still frozen fallow.

Spring comes with the aconite and the Wheatear, but despite the flower and the bird she has not yet taken the land for her own. But the day of her accession is near. For a week or more the Chaffinch and the Great Tit have been singing of it. It opens at last warmly and sunnily. New flowers spring on every hand. A gauze-like veil of green covers the fine black pencillings of the elm-sprays. And from

amidst the opening leaves in the little plantation by the river, come the first true notes of spring : the notes which have in them all the promise of the nearing summer days : the song of the first Willow Wren.

The small yellow bird is not at all anxious to evade attention. As we pause on the little grassy path, we see it at once, moving on the outer boughs of one of the nearest trees. A frail, delicate little creature, it seems, to have braved the crossing of continents and of seas. Now it sidles along the bough, the pale yellowish-green of the newly bursting foliage harmonizing with its plumes, and standing on tiptoe, with fluttering wings, it seizes an insect from the leaf above its head. Now it rests for a moment to utter again the warbling notes which we heard from the road. The song is not wanting in volume and power—indeed, these are remarkable in view of the size of the bird—but is none the less sweet and restful, with something of the murmur of the river in it, together with some sympathetically human quality which eludes definition. The American naturalist, Burroughs, speaks of it as one of the most melodious strains he heard in England, exhibiting to the full the best qualities of the New England singing-birds. “A long, tender, delicious warble,” he writes, “eminently pure and sweet—the song of the Chaffinch refined and idealized : a song, perhaps, in a minor key, feminine rather than masculine, but which touches the heart.

‘That strain again : it had a dying fall.’

The song of the Willow Wren has a dying fall.

It mounts up full and round, then runs down the scale and expires upon the air in a gentle murmur."

The Willow Wren, unlike many of its congeners, has few local prejudices. Wherever trees are to be found, in plantation or copse, in garden or orchard, there it may be seen, flitting happily amidst the boughs, often darting into the air to seize a fly and returning to its perch.

Frequently several may be heard singing together within an area of a few yards.

The Chiffchaff, although generally known as a summer visitor, appears to have the strongest attachment to England of any of its kin. Not only is it the first to reach this country and the latest to leave, but it often elects to spend the whole winter in the British Isles, especially in the more sheltered parts of Devon and Cornwall. In many of its habits, particularly in the manner of nest-building, it resembles the Willow Wren; the nest, however, being generally placed at a greater elevation.

The chief difference lies in the song—if, indeed, the Chiffchaff's cry can be called a song—consisting as it does merely of two notes frequently repeated. Unlike most warblers, which usually become silent when the young are hatched, the Chiffchaff is vocal far into the autumn, and instances are given of its notes having been heard in the depths of winter.

It is an active, restless bird, but although it has little of the Willow Wren's gentle and confiding disposition, it still lacks the love of deep seclusion which is so marked a characteristic of the Wood Wren. It is rarely seen on the lowlier boughs of

apple-tree or hawthorn; its breezy, ringing notes, "chiff-chaff, chiff-chaff," rising and falling, uttered again and again, with brief pauses intervening, usually reaching us from the very topmost bough of elm or oak, the bird itself being clearly visible against the sky.

Like the Willow Wren and the Spotted Flycatcher, it makes frequent excursions into the air in pursuit of flies, and I have seen it, on occasions, follow its prey nearly to the ground. When the capture is made, however, it at once returns to its coign of vantage on the tree-top.

THE GOLDEN-CRESTED WRENS

Two species of Crested Wrens—the smallest birds known in Europe—are found in England. The Fire-crested Wren's inclusion in the British list rests, however, on comparatively few occurrences, mainly in Cornwall and generally in the depth of winter. Both are of a delicate olive-green hue, and bear the crown of yellow and orange edged by two black streaks, but the Fire-crest is distinguished by the brighter and more extended orange of the head merging almost into scarlet, and by a conspicuous dark streak which extends across the eye.

The Golden-crest, on the other hand, may be regarded as a fairly familiar bird, especially in the neighbourhood of fir trees. This species appears to form a connecting link between the true warblers and the Titmice, with the latter of which it has many habits in common.

In the deep fir woods the attention is often



NEST OF GOLDEN-CRESTED WREN—CUT FROM BRANCH AND PLACED ON
THE GROUND

attracted by a tiny piping note, "si-si-si," and a diminutive bird flits into view. If one remains quite still, it appears to have little fear of the intruder, and it soon draws nearer, exploring the feathery branches of the firs, often hanging head-downwards from the finer sprays. Sometimes it will come almost within reach of the hand, and as it depends from the bough, the golden hue of the crown can be clearly seen against the dark green spines. In a little while several may be seen, for small family parties, which are probably the complement of the previous year's nest, generally appear together. Sometimes in early spring, it pauses to utter a soft warbling song, its tiny frame quivering in unison with its notes, but for the most part it is silent, save for the call-note, which is repeated directly on alighting after each of its short flights, as though to make those following aware of the direction it has taken.

The Golden-crest is an early bird to breed, the eggs being laid by the end of March or beginning of April. The nest is a beautiful example of construction: a tiny cup of moss-green and silvery grey, bearing some resemblance to that of the Chaffinch, but instead of being fixed in some fork, it is carefully woven to the drooping sprays beneath the fir-branch. As the elevation is fairly high and the very extremity of the bough is usually chosen, the nest is by no means easy for the collector to obtain. The photograph shows a nest cut from the branch and placed upon the ground so that the eggs may be seen.

Although the Golden-crest is resident in Great

Britain, and is rarely seen to attempt a sustained flight, the instinct for migration is strong within it as a species. At the end of October vast flocks often appear on the east coast, arriving a little in advance of the Woodcocks. The Golden-crest has thus come to be known, in some places, as the Woodcock pilot.

Spurn Point, on the Yorkshire coast, is one of the first landing-places of these tiny travellers on their way south from the far-off Scandinavian fir forests. Here on the sand-dunes, overgrown with marram-grass and bordered on the south by the vast mud-flats of the Humber, they may be seen flitting in all directions amidst the bents, often so weary that they make little effort to evade the passer-by. The late Mr. Cordeaux, in his *Birds of the Humber District*, states that, belated in the fog, they sometimes descend upon the North Sea fishing smacks, and that many hundreds perish in the sea.

SHRIKES AND FLYCATCHERS

Of the four Shrikes—the Greater and Lesser Grey, the Woodchat and the Red-backed, the last alone may be said to be a familiar bird.

The Great Grey Shrike is a winter visitor to Great Britain, whilst the Lesser appears on the summer migration. Each is of more or less uncommon occurrence. Of the Woodchat, so few well-attested appearances had been noted that, until comparatively recent years, doubts were expressed as to the propriety of including it in the British list at all.



YOUNG RED-BACKED SHRIKES

The Red-backed Shrike is a summer visitor to these islands. It is generally familiar in the more southerly counties, growing rarer to the north. The adult male, with its chestnut back and wings, and black and grey head, is a handsome and conspicuous bird. The nest is large in relation to the Shrike's size, and is usually placed in a high hedge or bush. The eggs, four to five in number, vary very much in colour. They are usually of a yellowish-white marked with brown, but examples are constantly found of a greenish or salmon-pink ground colour with blotches of lilac and light-red. In common with other members of its family, the chief characteristics of the Red-backed Shrike is the curious habit of forming a larder in the hedges. Here mice, birds and beetles are found impaled upon sharp thorns to await the returning hunger of their captors. The practice of storing up food for future use, although commonly adopted by certain orders of mammals, is rarely a part of the domestic economy of birds, and never in so marked a degree as in the Shrikes. It is from this habit that the familiar name Butcher-bird is derived.

In the summer woodlands, especially in the south, one's attention is often attracted by a small chirping note many times repeated. It is so slight in quality that it would appear to proceed from one of the smaller finches. But soon a bird of fairly large size is perceived, perched in the manner of a fly-catcher, on the topmost bough of the tall hedge which skirts the wood. Then it becomes clear that the notes, which seemed to be so nearly at hand, really proceed from the more distant Shrike. He is

reticent, and on our approach he flits away along the hedgeside, followed by his browner-plumaged mate, and so disappears into the wood.

From his coign of vantage on the hedgetop he was watching for his prey, and should one of the larger insects—bee or May chafer—blunder by, he would at once have taken it on the wing. From the fact that small birds are often found hanging upon the thorns, it is evident that these form a regular part of his diet, but they, together with the mice, are usually pounced upon secretly. It is recorded by Yarrell, however, that a Red-backed Shrike has been seen in eager chase of a Black-bird, and Saunders states that it has been known to strike down a flying Sand-Martin and to carry it off.

Three Flycatchers are included in the British list. Of these, the Red-breasted owes its place to a few occurrences only. Of the remaining two, the Spotted and the Pied Flycatchers, the former is by far the more common, and may be described as one of the most familiar of our woodland birds.

One peculiarity of the Spotted Flycatcher lies in its catholicity of taste in the selection of a nesting site. It vies with the Robin in the choice of curious and original situations. Normally the nest is found in the creepers of the trellis, in the small branches growing from the bole of an elm, on the beam of an outhouse—hence its name, Beam-bird—or in the broken side of an old wall. But other and more precarious positions are constantly adopted—the



SPOTTED FLYCATCHER ON NEST

shelf of a bookcase in an upper room, the top of a door, inside a broken lamp or stove, on a watering-can hanging in a conservatory, on a battered old hat fixed on a pea-stick as a scarecrow, and in other places too numerous to mention.

The eggs, four to five in number, are of a greenish-white ground colour, thickly speckled and streaked with red and rusty brown.

The photograph gives a nesting site which may be taken as typical.

In plumage, the adult birds are of a uniform olive-brown, the shades merging into a dull white on the throat and breast. The size is a little over five inches. In the young the back and wings are spotted with much lighter hues.

The Spotted Flycatcher is a summer visitor, appearing in Great Britain in April and leaving in September.

This little bird, associated as it is with the sunshine and the flowers of happy English gardens, is a general favourite. Unlike the Wood Wren and many of the other warblers, which love to hide themselves in the verdure of the spring leaves, and whose presence is often known only by their note, the Spotted Flycatcher appears to delight in being conspicuous. Perched upon the back of the garden-seat, on the post of a tennis net, on the railings which skirt the lawn, or upon the single dead branch which projects from the foliage of the oak, he remains all through the long summer day about the homestead. Ever and anon, he darts from his coign of vantage, performs a graceful evolution in the air, when the snap of his tiny beak may be heard

as he seizes a fly, and returns to his post like a sentinel.

Then from his nest, built, it may be, in the jasmine or the rose-tree which climbs about the verandah, within a few feet of the door, he brings out his mottled little ones, and here they sit upon some trailing bough, lifting their little wings eagerly when the ever alert parent appears with a fly, happy in their new world of leaves and flowers and sunshine.

The Pied Flycatcher is also a summer visitor, but is much less common than the Spotted. Its distribution is irregular in England, the species occurring most frequently perhaps in Westmorland and Cumberland. Its nest is usually placed in a hole in a tree at a low elevation, and more rarely in a wall. Often the stumps in wood clearings are utilized. Here, on a bedding composed mainly of oak-leaves lined with dried grass, the six or even nine eggs of uniform pale-blue are laid.

The length of the Pied Flycatcher is a trifle less than that of the Spotted, but the former is much more striking in plumage. Indeed, the clear black and white markings of the adult male give it the appearance of a miniature Magpie.

On migration it is often found in localities which would appear to offer few attractions to a woodland-loving bird. When seal shooting in August at the Vee Skerries—a detached reef of rock well-nigh submerged at high tide which lies far to the west of the Shetlands—I saw several small birds flitting about amidst the boulders. These were easily



YOUNG SPOTTED FLYCATCHERS



PIED FLYCATCHER AT NESTING HOLE

identified as immature Pied Flycatchers which had alighted on that desolate spot on their autumn migration.

In its summer home amidst the English woods the Pied Flycatcher is a lively and interesting bird, and its black and white plumage as it glances amidst the dark green leaves, renders it at once noticeable. It is, however, far more reticent than its spotted congener, and will rarely allow so near an approach.

It feeds principally upon insects, but unlike the Spotted Flycatcher it does not appear to take them on the wing.

The photograph shows the male approaching the nesting hole in an old oak-tree.

CUCKOOS

Three species of Cuckoo are described as British. Two, however, the Great Spotted and the American Yellow-billed, are the veriest stragglers, and their inclusion rests on a few isolated occurrences. The common Cuckoo, on the other hand, is one of the most familiar of British birds, not so much by reason of its abundance, as by its possession of certain marked characteristics which at once arrest attention.

The Cuckoo is a somewhat late summer visitant, rarely reaching England, especially the more northerly parts, before mid-April, the old birds departing again about the end of July, leaving the young to follow. Directly on arrival, it makes its presence known by its familiar echoing note, "cuck-oo, cuck-oo," usually uttered from one of the

upper branches of a tree. As the summer advances, the cry becomes almost incessant, and is frequently heard in the midst of the night. At this season, the large, grey, hawk-like bird may be seen winging its way from tree to tree, often crying as it flies. In June, the note loses its clear sonorous quality, and, before the end of July is reached, it usually ceases altogether.

The female Cuckoos are less numerous than the males, and they lead a more secluded life in the deeps of the woodlands.

The parasitic habit of the Cuckoo has been the theme of countless dissertations. How it comes to be devoid of the maternal instinct, which is one of the most powerful motive forces in animated Nature; by what discriminating processes it selects nests suitable for the foisting of its egg; how the egg is inserted in nesting recesses far too small to admit of the entrance of the female bird; how and by whom the legitimate eggs and nestlings are ejected—all these form questions to which an endless number of answers have been supplied, with their corresponding refutations.

The broad facts are now pretty well agreed upon, although the initial mystery remains untouched. In the first place, the parasitic habit is not peculiar to our Cuckoo; it is shared by others of its Old World relatives, and in America, by birds not at all related to it. Again, although the nests of insectivorous birds, especially those of the Meadow-pipit, Hedge-sparrow and Pied Wagtail, are usually chosen, this is by no means invariably the case, Cuckoo's eggs having been found in the nests of no less than



CUCKOO TWO DAYS OLD EJECTING A YOUNG MEADOW-PIPIT



CUCKOO FIVE DAYS OLD, HAVING JUST EJECTED YOUNG
MEADOW-PIPIT AND EGG

seventy-eight species, including those of Finches, Jays, Magpies, and even of the Little Grebe. In the latter instances, it may be supposed that even if the young were hatched, the foster-parents would fail to support them.

It has also been stated that the Cuckoo actually determines the colour of her eggs, and adapts them to the hue of those in the nest which she usurps. This is not altogether borne out by the facts, for her greyish-green eggs, closely mottled with deeper grey, are constantly found in the nest of the Hedge-sparrow. At the same time, Mr. Metcalfe informs me that he has found a Cuckoo's egg of a uniform pale blue in a Hedge-sparrow's nest, and many other examples are recorded. In the Natural History Museum at South Kensington there is a special case of clutches of eggs amongst which the Cuckoo has deposited hers, which certainly show a marked adaptation of colour.

In regard to the placing of the egg, it is now known that the female first discovers what she deems to be a suitable home, lays an egg on the ground adjacent to it, then deliberately carries the egg in her bill and deposits it in the alien nest, the act of intrusion being constantly resented by the owners, although they subsequently brood the egg with the most sedulous care.

Then follows what has been described as one of the most remarkable chapters in Natural History. The Cuckoo's egg, notwithstanding its greater size, is usually hatched either a little before, or at the same time, as those of the rightful householder. The young monster, therefore, finds himself associ-

ated with the eggs or callow nestlings of the bird whose nest is invaded. At once he shows signs of restlessness. He appears to examine, as it were, his neighbours, pressing beneath them his bare wing-blades as though to test their weight. By slow degrees he works the egg or nestling higher, until at length it rests in the curiously deep depression which Nature has hollowed in his back. Then, moving backwards, and clinging with his claws, by a desperate effort he hoists his burden clear over the nest side.

Mr. Metcalfe's remarkable photograph shows the Cuckoo two days old in the act of ejecting a young Meadow-pipit. In this case there were two Cuckoo's eggs in the nest, an unusual thing. It will be seen that the interloper has already thrown out the Pipit's egg and the Cuckoo's as well. The second photograph shows a Cuckoo, five days old, resting after the labour of evicting a callow Pipit and egg.



YOUNG CUCKOO



TREE-PIPIT FEEDING YOUNG CUCKOO

THRUSHES

YARRELL includes nine species of this family in the British list. Of these, White's, the Black-throated and the Rock Thrushes are the rarest of stray visitors.

The inclusion of White's Thrush rests upon about eight occurrences. Of the Black-throated Thrush a single example is noted, and of the Rock Thrush three, one only of which, the bird now figured in Yarrell's *British Birds*, can be regarded as well attested.

Of the six remaining species five may be regarded as familiar tree-loving birds, the Ring Ouzel alone neglecting the woodlands to find a haunt amidst rocks and heathery places.

The name of the Mistle Thrush has been the subject of many learned treatises. Even now, no united opinion appears to have been arrived at by the authorities. Saunders uses the word Mistle, and Eagle Clarke, Missel, whilst Yarrell and Lilford adopt the full title of Mistletoe Thrush. As all the names are derived from the plant upon which the bird feeds, the last is probably correct. Still, seeing that popular usage has sanctified the abbreviation, we adopt it here, and as the ancient spelling of misseltoe has now been changed to mistletoe, we take mistle as the better of the two shortened forms.

The relation between the Mistle Thrush and the parasitic plant from which its title is taken, has formed a theme for discussion in the works of many ancient writers. Upon this subject Mr. G. W. Murdoch has the following interesting note :—“ The propagation of the mistletoe plant by the agency of the Mistle Thrush was believed in by Aristotle (*Hist. An.*, Book IX. 96); by Pliny (who cribbed extensively from the great Greek’s natural history writing); by the poets, and by the sixteenth century English naturalists. The theory was that the bird lived largely on the berries of the mistletoe plant when it could obtain them; that it did not digest them, but discharged them in almost perfect condition on the branches of trees, to the bark of which they adhered, and that so grafted they blossomed and throve. This was thought to be absurd by Bacon (*Sylva Sylvarum*—Century VI.), and his inductive refutation is here given in the original spelling, use of capital letters, and italicized words from the edition of 1627.

“ ‘ We finde no *Super-Plant*, that is a Formed *Plant*, but Misseltoe. They have an idle Tradition, that there is a *Bird*, called a *Missel-Bird*, that feedeth upon a *Seed*, which many times shee cannot digest, and so expelleth it whole : which falling upon a *Bough* of a *Tree* that hath some Rift, putteth forth the Misseltoe. But this is a Fable : For it is not probable, that *Birds* should feed upon that they cannot digest. But allow that, yet it cannot be for other Reasons : For first, it is found *but* upon certain *Trees* : And these *Trees* bare no such *Fruit*, as may allure that *Bird* to sit, and feed upon them.

It may be that the Bird feedeth upon Misseltoe-Berries, and so is often found there: Which may have given occasion to the Tale. But that which maketh an end of the Question, is that Misseltoe hath been found to put forth under the Boughes and not (onely) above the Boughes: So it cannot be anything which falleth upon the Bough.' ”

This dictum was supported by Browne in his *Pseudoxia Epidemica, or Inquiries into Vulgar Errors* (Book II.).

Mr. Murdoch goes on to say: “Botanists and naturalists followed these eminent authorities with slavish trust up to comparatively recent times, but the veracity and perspicacity of the ancients was finally established by the late Anton Kerner Von Marilaun in his great botanical work, *Pflanzenleben*. Of course certain birds often swallow substances they cannot digest, and these are used as aids to digestion. In the case of the Mistle Thrush, the viscous mass surrounding the undigested berries discharged on a branch, following the laws of gravitation, is conveyed to the sides and even underparts, where it remains cemented, and in due time the seeds take root and flourish in parasitic form.”

It is with something of relief that we turn from these weighty matters to meet the Mistle Thrush in the open air. He is one of the earliest birds to sing. Perched on the topmost bough of some lofty tree, buffeted by the stormy wind and hail of a winter's morning, the Storm-clock—well named—hurls forth his loud, hoarse notes as though in defiance of the

hostile elements. His performance may not reach a very high musical standard when compared with the resonant melodies of the Song Thrush or the flute-like pipings of the Blackbird. But Nature chooses her minstrels carefully. As the Nightingale's note accords with the dim eventide, the Lark's with the open sun-filled sky, the Willow Wren's with its setting of freshly budding leaves, and the Curlew's cry with vast desolate stretches of moorland, so the voice of the Mistle Thrush truly expresses the spirit of the storm, of wind-lashed branches, and of dark, swiftly-moving clouds.

This Thrush is not only the largest of its race, but is also the earliest to breed. The nest is conspicuously placed in the fork of some tree, often before any trace of foliage has appeared to hide it. The parent birds have a well-earned reputation for boldness in defence of their nestlings, and M. Vian states—asserting with easy confidence a “fact” which is constantly disproved by experience—that “wherever this Thrush builds its nest, a Chaffinch will do the like, either on the same tree or on one close by.” Then, should Pie or other pillager approach, the Chaffinch raises a cry of alarm, whereupon the Thrush darts upon the intruder and drives it away.

But although this alliance for mutual protection has no existence in Nature, it remains true that the parental Mistle Thrush develops upon occasion a very high degree of courage. It will certainly attack with fury birds much larger than itself, and I, personally, have seen it, with bristling feathers and outstretched neck, affront a prowling cat which



MISTLE THRUSH FEEDING YOUNG



FIELDFARE

seemed much confused by, but by no means inclined to resent, the onslaught.

One curious fact in the history of this bird is that it was once extremely rare in certain localities, where it has since become quite common. Thompson states that in Ireland it was practically unknown before the year 1800, whilst now it has become a regular resident species. As recently as 1830 it is said to have been a most unusual occurrence to find it nesting north of the Tweed. Now its breeding range extends to Ross, Sutherland and Caithness.

The Song Thrush shares with the Blackbird the distinction of being not only the most melodious, but the largest of the British avian musicians; for the Mistle Thrush's wild notes hardly entitle him to a place in the highest class. In the matter of limiting vocal skill to the smaller races of birds, Nature has doubtlessly acted with a wise discretion. If, for example, a member of the Crow family had a Skylark's voice increased proportionately with the Crow's size, the result might be overwhelming. In the larger fowl, too, musical power would probably involve danger to its owner, and it may well be that on this account alone, the process of natural selection has restricted song to the birds which can easily evade attention.

In its choice of a nesting site the Song Thrush exercises a varied taste. The fork of a low tree, the centre of a hedge or isolated thorn-bush, or the upper branches of a tall-growing rhododendron or laurel, are places usually selected. But the nest is also frequently found in a broken wall or bank, or

in ivy : sometimes in a barn or summer-house, and instances have been given of its discovery in the grass of the meadow many feet from the hedge.

The process of nest-building is laborious, the birds bringing the materials—decayed wood, mud, etc.—often from long distances, placing them in very small quantities at a time in the interior, and rounding and shaping them by pressure of the breast, turning the while from side to side. The precise advantage of this well-nigh water-tight inner coating as compared with the looser construction of other nests is not apparent. In place of protecting the contents it merely serves to retain the moisture, and Thrushes' nests in exposed situations are often found in a water-logged condition after heavy rains when those of the Hedge-sparrow and the Blackbird in the near neighbourhood are comparatively dry.

The range of the Song Thrush extends throughout Europe, and it breeds in very high latitudes. In the northern countries, however, it is a summer visitor only, whilst in the south it appears chiefly in winter.

Although in Great Britain the Song Thrush is resident throughout the year, seasonal movements take place which bring about great accessions to its numbers in certain localities; in others it is said that every bird disappears between November and February.

At the sea-cliffs, on the east coast of Yorkshire, large parties often appear in December, sometimes a dozen or more being counted in an area of less than fifty yards.

The Song Thrush is one of the earliest birds



YOUNG SONG THRUSHES

to begin to sing, following closely upon the Mistle Thrush, but, unlike the latter, it prefers a calm day, when the warm sunshine hints at returning spring, for its opening performance. In this respect, in my experience, it is always some weeks earlier than the Blackbird, although in some districts Blackbirds have been known to be in full song on Christmas Day.

The Thristle—as this bird is familiarly named—is well known in every English garden, and is welcomed by all, except, perhaps, by the more jealous type of fruit growers.

See it as it emerges from the shelter of the dark glistening leaves of the rhododendrons, and advances upon the lawn. It comes forward with swift, elastic hops, the first long, followed by one or two shorter, then it stands motionless, with its head slightly bent, as though listening intently. Soon, turning abruptly to right or left, it repeats the movement. Suddenly, with a quick pounce of bill, it seizes the head of a great earthworm, and with slow care, standing back upon its heels, it extracts the curling length from its retreat in the earth. Then, with the sun shining on its spotted breast as it stands out clearly against the soft, green grass, it partakes, with rapid gulps, of its morning meal. In a moment more the olive-brown wings are spread, and it flies to a neighbouring tree.

The food of the Song Thrush, in addition to worms and insects, consists largely of snails. The shells of these are broken by repeated blows against some hard substance, and a suitable stone may often be found surrounded by the *débris* of its feast. In

the destruction of the slugs and insects which affect the growing plants, the Thrush runs up an account with the gardener which may fairly be set against that of the berries which it consumes in autumn, and which it may properly claim to have helped to rear.

The Blackbird, the " ouzel cock with tawny bill," is, with the exception of the Song Thrush, the most familiarly known of the British Thrushes. It is usually seen singly or in pairs, and although less confiding than the Song Thrush, it constantly resorts to the shrubberies and orchards surrounding English homesteads. Its food consists largely of worms, slugs and insects, and it unquestionably does great damage in the fruit season, especially amidst the gooseberry bushes and the strawberry beds, its depredations being more considerable than those of any of the other Thrushes. I have watched a Blackbird return, time after time, to a single bush, and rapidly denude it of fruit, tearing the berries from the stem, and allowing them to fall upon the ground, when it would descend and partially devour them, or if disturbed, carry them away. At this season its appetite appears to be insatiable. In common with its congeners, it is especially fond of the red berries of the mountain ash. Throughout the whole day numbers of Blackbirds and Thrushes will assemble about a single tree, fluttering heavily amidst the foliage and alighting upon the sprays to which the clustering berries are attached, the slender stems bending low beneath their weight.

In the tall hedgerows which skirt our English pastures the Blackbird is constantly seen, finding food in the hips and hawthorn berries, and seclusion for its nest in the thicker recesses. It is noticeable for its way of starting from the hedgerows, with a loud, quivering alarm cry, and after darting for some little distance, suddenly turning at right angles and regaining its shelter. It is a late bird to go to roost. In the dusk of a summer's night one is often startled by a dark form winging its way suddenly through the gloom, uttering the while its querulous notes, long after even the chattering Sparrows in the ivy and the silently moving Robins have retired to rest.

Great differences of opinion exist as to the relative values of the songs of the Blackbird and the Song Thrush. Some authorities take a somewhat low view of the Blackbird's skill. Yarrell, for example, states that its notes are more remarkable for power than for compass or variety, and further, that they have a somewhat melancholy effect, and are too frequently repeated. Others, again, proclaim it as the very prince of musicians, and dilate upon the masterly ease and fluency of its melodies, far exceeding, to their minds, those of the Song Thrush, and inferior only to those of the Nightingale.

It may be noted here that in the spring the Blackbird frequently continues its song as it flies from tree to tree, and like the Song Thrush, may occasionally be heard singing upon the ground.

The Redwing, being strictly a winter visitor, does not breed in these islands, although instances

have been known of isolated birds remaining during the summer. It is an interesting thing when one has learned to know the Redwing only as a winter bird, and to associate it always with frozen fields and leafless trees, to come suddenly upon it in its Norway home, and to hear the familiar notes again amidst the green birch-trees and the juniper, with a cataract roaring down the declivity of the valley, and with snowy heights towering far above.

Once on a fishing trip in the Hardanger, as we ascended a ravine, with the pack-ponies climbing like goats from rock to rock, and with the broad panorama of foaming river, lake and pine-wood lying far below, we came across a colony of Fieldfares nesting in company with the less familiar Redwings. The nests of the latter, of which we found several, were in the lower trees, some almost within reach of one's hand. One nest, which rested upon a high, mossy rock, around which the birch-trees grew thickly, contained four eggs; but, for the most part, both with the Redwings and the Fieldfares, the young were partly fledged, the season being mid-July.

One peculiarity of this Thrush—remarkable in a winter visitant—is that it appears to suffer extremely from long-continued frosts. In seasons of exceptional severity, many hundreds are found well-nigh starved, when the native Thrushes are still in fairly good case. As all birds are affected by the loss of food-supplies rather than by the actual cold, it may be that the residents find certain resources undiscovered by the Redwing.

The Fieldfare has much in common with the Red-

wing, and on migration the two species frequently arrive together. It is the handsomest of the Thrushes, and its loud, clear rattle and bright ash-grey plumes render it at once conspicuous as it moves, often in considerable flocks, about the wintry fields. Differing from other members of the Thrush family it sometimes roosts upon the ground. Although it appears to be one of the hardiest of birds, it is, in common with the Redwing, incapable of enduring long-persistent frost. On the east coast of Yorkshire in the winter of 1906-7, many hundreds of Fieldfares and Redwings were seen numbed and helpless in the fields or clustering about the houses, in so weak a condition that they could easily be taken by hand.

The nest is formed of fibres, coarse bents and moss, with an inner layer of mud and a lining of soft, dry grass. The eggs—four to five in number (Saunders states that seven are sometimes laid)—resemble the Blackbird's, but are boldly blotched rather than streaked.

The Fieldfare breeds in colonies, often choosing the sides of some wooded ravine for a site, and the numerous nests seen at the tops of the comparatively low birches, give the coppice the appearance of a miniature rookery. Although these birds usually build at a fair elevation, this is not always the case. When Ryper shooting in early September, near Nadre Vasenden in Norway, I recently came upon a group of nests from which the young birds had then, of course, flown. In this place, in a hollow in the hills, the ground which surrounded a weedy lake was extremely boggy, and here and there, islands

arose from the marsh, which were covered with a tangled growth of willows and birch, none of which were more than eight or ten feet high. On one of these islands, the Fieldfares had formed a small colony, notwithstanding the stunted character of the trees. The deserted nests were in evidence, and a few birds still hung about the boughs.

The wandering habits of birds of this type form something of a stumbling-block to the philosophers who seek to reduce avian migration to some fixed law. The Fieldfare is a typical Norwegian bird. Around the cultivated patches about the homesteads; on the narrow level stretches which lie between the lake-margins and the feet of the steeply-ascending hills; in the mountain ashes which grow on the roadside; these Thrushes congregate in the autumn, preparing to cross the North Sea. Their reason for this movement appears plain. In a little while the snow which even in mid-July covers the higher crests, and lies deeply in the hill-hollows, will have invaded the valleys, and the food-bearing areas will be buried far beyond the reach of hungry bills. But why, having braved the perilous flight, and when the temperate shores of England are gained, should the Fieldfares crave again the sterner surroundings of their birthplace? In the springtime when they gather together to return, the conditions of life in England are growing more favourable day by day. The food which suffices for their congeners of precisely similar tastes is becoming more and more abundant. Here at hand are secluded retreats, woods and coppices, in which they may nest in security; and here the summer climate differs

little, if at all, from that of Western Norway. Why, then, may they not rest at last and sing with the Lotos-eaters—

“our home

Is far beyond the wave : we will no longer roam”?

Whatever reply may be eventually made, it can hardly be said in relation to the Fieldfare that its movements are controlled either by climatic conditions or by a decreasing food supply.

TREE-CLIMBING BIRDS

FOLLOWING the path through the fields which lead to the village, one comes to a stream spanned by a single plank. The brown water, gurgling amidst mossy stones, is soon lost sight of as it glides beneath drooping branches on its way to the valley beyond. Few of the passers-by pause for a moment even to bestow a glance upon it, and none turn aside to trace the windings of so insignificant a thing. For a little way, its channel is bounded by high banks, thickly overgrown; but lower, these fall away, and the stream enters a tiny level glade, where it may catch the sunlight, although the trees growing on the slopes to right and left well-nigh form a canopy above its head. These trees, beaten by opposite winds, all lean inwards, bending permanently in the direction where the slope of the bank gives the least support to the roots. Here, in this small, open space, a little above the stream, an old tree-trunk stands amidst a wilderness of lush grass, ferns and bluebells. It has been shattered at some time by storm or lightning, or, more probably, by the fall of some heavier timber from the higher ground. Its base is silvery-green with moss and lichen, and a great rift in its side shows it to be hollow. A little to the right, a hole may be seen, suspiciously round to the eye accustomed to take



THE HAUNT OF THE WOODPECKER

note of the ways of wood-dwellers. Screened by a thick holly, we may rest here awhile.

For a long space there is silence, broken only by the flow of the stream against the pebbles, or by the humming of a heavy-bodied bee, whose frail gauzy wings seem inadequate to raise it from the flower-cup wherein it has fallen, rather than alighted. At last in the distance we hear the expected note—the note of the Green Woodpecker: “Yeu-pleu-pleu-pleu”—a breezy, laughing cry, which seems startlingly loud to proceed from so shy a bird.

He comes at last with easy, undulating flight; a bird shaped somewhat like a larger starling. As he alights on the ancient bole, clinging to the base, we see him clearly; the head, with its scarlet and black markings, and the green back, merging into golden yellow. He moves easily on the vertical plane, proceeding spirally, his stiff tail-feathers pressed against the trunk. Now he pauses to examine a piece of bark partly detached. Beneath this, he knows, some insect or creeping thing may be lurking, and he strikes it repeatedly. However minute the prey may be, it has little chance of escape. The tip of the tongue is a horny point, armed with fish-hook-like barbs, and provided with a glutinous secretion, to which the most microscopic of insects adhere and are withdrawn into the mouth, whilst the larger creatures—the beetles and spiders—are arrested by the barbs. Although he lives chiefly upon insects found in decayed wood, the Green Woodpecker often drops suddenly to the ground, and may be seen pursuing his search amidst the

tangled herbage at the foot of the tree. He seems out of place here, standing almost upright, as though he were still facing the bole, and he proceeds by a series of short hops, pausing abruptly to thrust his bill into the grass. Where ants abound he fares sumptuously, but cockchafers and flies of all descriptions are readily taken. When the voracious nestlings are awaiting a meal, he exercises great ingenuity and self-denial. In place of swallowing each morsel as he discovers it, he merely withdraws it within the sheath of the bill, and then, with chafer, beetle, or fly, ranged in a disorderly row, he wings his way back to the nesting-place.

The cavity in which the young are reared is usually in an elm, poplar, or sycamore, and rarely in a beech or an oak. It is hewn horizontally into the tree, both parent birds labouring in turn, and is beautifully round and symmetrical, the edges being neatly smoothed. The Woodpeckers never, I think, attack perfectly sound timber; but, before the site is selected, they have learned by tapping and listening that the trunk is rotten within. Thus, when the soft, decayed parts are reached, they have little difficulty in carrying the tunnel downwards for a foot or more, and here, on a bare bedding of chips, the four to six translucent, white eggs are laid. Sometimes these are found to be suffused with varied and beautiful hues, altogether unlike the normal colouring of eggs, and it is thought that they have become stained either by the sap or by some fungoid growth within the tree.

In addition to the Green Woodpecker, several



GREEN WOODPECKER FEEDING YOUNG AT NESTING HOLE



GREAT SPOTTED WOODPECKER AT NESTING HOLE

other species have occurred in Great Britain, including the Black, the American Spotted, and the Three-toed; but two alone, the Great and the Lesser Spotted, can be classed as truly English birds. They are both less common than their green congener, the smaller being the rarer bird of the two, although Lord Lilford states that in Northamptonshire the Lesser Spotted is the most abundant of all the Woodpeckers. In their general habits, mode of progression, and so forth, both these birds largely follow the Green Woodpecker, but their plumage at once sets them apart. The upper surface of each is glossy black, barred with white; in the Greater, the back of the head and the lower part of the breast is scarlet; and in the Lesser the whole crown of the head is scarlet, but the colour is lacking beneath. In the females of both species the conspicuous scarlet hue is wanting.

The jarring sounds which proceed from the Lesser Spotted Woodpecker are so singular that it is by no means easy to learn how they are produced. It was at one time thought that the cracking, or snapping noise, was a cry, whilst other observers believed that the bird placed its bill in a hole and rattled it to and fro. The sound is now known to arise merely from the tapping of the bird's bill upon some hollow trunk or branch. As one writer, quoted by Yarrell, says, "The motion is so quick as to be invisible, and the head appears to be in two places at once;" adding, "it is surprising, and to me wondrously pleasing, to observe the many varieties of tone and pitch in their loud

churring as the birds change their places on boughs of different vibrations."

These three Woodpeckers are all resident in England, being commoner in the southern counties, and growing rarer towards the north.

Another curious bird of the tree-climbing group is the Wryneck. He is much less expert in moving on upright surfaces than others of his kin, and is frequently seen perched stiffly across a branch, but he is nevertheless a true climber. His plumage is grey and brown delicately blended, and pencilled with black, and his whole appearance harmonizes so well with his surroundings that he is easily overlooked. He, too, is provided with a tongue tipped with the glutinous secretion to which insects adhere, and the rapidity with which he darts it forth and secures his prey resembles the similar movement of the Chameleon. Perhaps, however, his chief claim to notice is his singular contortion when held in the hand. He then attenuates his neck to an extraordinary extent, twisting it and writhing from side to side as though in a death-agony. In the belief that he is *in extremis*, his captor frequently releases him, whereupon he incontinently flies away.

Although science admits no relationship between the Creepers and the Woodpeckers, the two species, none the less, have much in common. In their distinctive manner of ascending the perpendicular boles of trees, in their use of claws in climbing, and in several other respects, the Woodpeckers,

Nuthatches and Creepers would appear to fall into a natural group.

In its choice of a nesting site, however, the little Tree-creeper—it is one of the four smallest birds found in Great Britain—stands entirely alone. When the ancient elm-trees begin to feel the stress and storm of years, strips of their rugged bark are often partly torn from the trunks. These, depending, form a shelter exactly fitted to the Creeper's needs. Hither it brings its burden of twigs, which it places between the inner bark and the bared wood, and then, little by little, it rears the superstructure of fine grass and feathers. The nest is by no means easy to find, for sometimes the bark is so slightly displaced that it affords the merest crevice into which the bird may creep. If the sheltering husk be torn away, the nest is often seen to preserve the odd contours of the space into which it has been fixed.

The Tree-creeper never alights upon the thinner branches of trees, after the manner of other small birds. Even its slight, shrill song, which is, however, rarely heard, is uttered when the bird is clinging to the surface of the bark. Its mode of progression from tree to tree is always interesting, and may easily be watched; for although the Creeper is one of the least obtrusive of birds, it appears to have little dread of the observer, often approaching close to the place where he is standing.

Wherever great trees are found, in woodland or hedgerow, a faint "chip-cheep," as though proceeding from some very young bird, may often be heard from the upper branches. Soon a small brown

form flies in a descending curve, and clings to the very base of the tree-trunk next in order. It is so near that one may readily note the buff and black mottling on the wing, the silvery grey throat, and long, delicately-curved bill. It remains still not for a moment, but its restlessness is as of one bent on serious work, rather than that of a shy wood-dweller shrinking from a human eye. On the instant its long, sharp claws grip the tree, it proceeds methodically to ascend by a series of short, jerking movements, the stiff feathers of the tail pressed firmly against the bark to give it purchase.

Soon, moving spirally, it is lost behind the trunk, but it reappears higher, working its way steadily upwards, examining, at each step, every interstice wherein an insect may lodge. The smoothest beech-bole is traversed as easily as the rougher elm or oak, and in a little while the brown, mouse-like form may be seen creeping contentedly, back-downwards, on the under surface of one of the loftier limbs.

When its scrutiny of a particular tree is concluded, it drops again to the base of the next, and begins anew its persevering ascent.

The Tree-creeper is generally distributed in all suitable localities in Great Britain, and occurs in all countries in Continental Europe.

The Nuthatch, familiar in England, was at one time believed to be the sole example of its genus to be found in Europe. Now, however, certain of the Continental forms have been shown to be



TREE CREEPER

distinct from ours; one species being peculiar to the Island of Corsica.

The Nuthatches form a link between the Tree-creepers and the Titmice, but they still retain a clear individuality of their own. Like the Creepers, they move with the utmost facility upon the trunks of trees, often descending head-foremost; but, in place of using the tail, creeper-like, to steady themselves, they rest the whole of the leg upon the bark, moving from the hip-joint. This attitude is also adopted when they are engaged in breaking the shells of nuts or acorns, and in this respect they follow the habit of the Great Tit. The Nuthatch, however, is far more expert in dealing with hard substances than any member of the Tit family. It is an interesting thing to watch him, bearing a nut or beech-mast in his bill, and casting about for some suitable crevice in which to fix it. When this is found—and it is surprising how soon he lights upon some crack in a post, or angle between the trunk and branch of a tree, adapted for his purpose—he at once wedges the husk firmly in its place, and, in the most workmanlike manner, proceeds to attack it. With his legs resting firmly on the wood, he throws back his whole body like a living pickaxe, and with his strong, sharply-pointed bill, strikes resounding blow after blow against the shell, which speedily gives way, leaving the kernel exposed. If, in the course of his work, a piece of the kernel flies into the air, he catches it with a downward swoop before it reaches the ground, and instantly resumes his task.

Apart from acorns, nuts, and various hard seeds,

his diet, like that of the Creeper, consists of insects.

The Nuthatch is not noteworthy as a songster, but his loud call-note, "twi-twi—twi-twi," many times repeated, and in spring accompanied by a shrill whistling sound, adds not a little to the varied music of English woodlands.

In the pairing season, the male bird bows to its mate, ruffling the feathers on his breast and expanding his tail, something after the manner of a pigeon. The hen, when sitting, has the Tit-like habit of hissing, and even striking with her bill, at an intruder's hand.

One characteristic of this species, which is shared with the Creeper and the Common Wren, is that it shows little or none of the migratory instinct.

TITMICE

Of the seven varieties of Titmice which are resident in Great Britain, five may be fairly regarded as familiar. The Crested Tit is confined to a few of the older forests in the north of Scotland; two or three occurrences only for England having been noted. The Bearded Tit—the interesting little Reed Pheasant, found in certain fenny districts in England—must also be classed as a rare bird, and, moreover, is not a true Titmouse at all. Of the five species remaining, all have certain characteristics in common, but each has, none the less, some distinguishing trait which at once sets it apart from its fellows. The largest of this



GREAT TITMOUSE AT NESTING HOLE

group in size, and most conspicuous in note and plumage, is the Great Titmouse.

The Great Titmouse is the true harbinger of spring, giving notice of its coming just as the Willow Wren announces its actual advent. In mid February there usually comes a day which differs from all those which have preceded it. The fields are still bare, and the woodlands dark and lifeless, but we are sensible of an indescribable difference since our last visit in chill December. Then Nature seemed dead; now we know that it was sleeping, and that it is about to wake. For some weeks the voices of the Thrushes and the Robins may have been heard, but these birds are winter singers, and their notes bear no especial promise that the great seasonal change is at hand. But when the clear, ringing cry of the Great Tit comes from the topmost boughs of the trees, one looks instinctively for the springing of the earlier flowers, and there is no longer room to doubt that we are leaving the wintry days behind.

The Great Tit is a handsome and active bird, bold, with a touch of aggressiveness in his bearing, which is altogether wanting in the gentle warblers—even in the militant Robin himself.

It may be noted that when he descends from his swinging post on the lilac-tree, his black and white head glistening in the sunlight, to join the feast on the lawn, that the small birds already assembled give him a wide berth. In this they are acting not without reason. Although I have never witnessed in the open an act of murder on the part of the Great Tit, I think there is little doubt that he will

both kill and partly devour birds almost equal to himself in size.

It is certain that in captivity, in association with other species, he is a dangerous character. On many occasions I found certain inmates of a large aviary—Linnets, Lesser Redpolls and others—lying dead with their skulls broken, the brain from the cavities being neatly picked. At first I attributed this to mice, but one day I saw a Great Tit leap upon a feeding bird and brain it with repeated blows of its pickaxe-like bill, holding, the while, the head like a nut in the claws.

This bird soon discovered a small opening in the wall, which enabled him to get behind the plaster. Whenever he was at all alarmed, he took refuge in this recess, from which it was impossible to dislodge him; showing thereby that he quite realized the limited area of his prison, for it is clear that no bird of his character would hide himself if he believed that any other way of escape were open.

The Great Titmouse is by no means particular in his choice of diet. Insects, in their various stages, probably form his staple food, but in harder times he will take anything at all edible which may come to hand. In common with others of his kin, he is especially fond of the cocoa-nut, or he will join the dog in overhauling any stray bone. He will, at times, frequent the landing-boards of bee-hives in search of dead bees, and it has been stated that he taps the sides of the hives with his bill to arouse the inmates, in order to seize upon them when they emerge. He also shows a marked predilection for the seeds of the sunflower.

The Blue Titmouse has none of the vices of its larger congener, and its beauty and sprightliness make it a general favourite. In the woodlands, except in the breeding season, it is usually met with in family parties, each group containing what may be taken to be the complement of the previous year's nest. Like others of the family, these birds seem to have little of the migratory instinct; but, within the limits of their own country, they unquestionably travel for long distances. Unlike so many birds which, having once taken up a location, may be found in the vicinity day after day, the appearance of the Blue Titmice in wood or hedgerow, is at once suggestive of travellers on a leisurely journey. In straggling order the line proceeds, alighting on the topmost sprays, with their tittering cry, feeding as they go; and in this way they will follow the course of the country lane for many miles, breaking away at length to traverse some wood or row of trees to right or left, but never remaining long in one place. In these excursions the older birds seem to go first, calling loudly after each short flight, when the rest invariably follow.

In winter several of these parties join forces, and flocks of fifty or more may be seen feeding amicably together.

Like the Great Tit, the Bluecap is a constant visitor to the homestead, especially in cold weather, and his lively bearing, and varied acrobatic movements on the string from which the cocoa-nut depends, are generally admired. He also frequents the gardens and orchards in the fruit season, and his conduct here forms matter for considerable dif-

ference of opinion. Some observers assert warmly that the Tits—the Blue Tit especially—so far from being harmful in the garden, are of the greatest possible use; that every bud destroyed contains the egg, or larva, of some deleterious insect. Others, again, including so distinguished an authority as the veteran Mr. Tegetmeier, dispute this conclusion; and, although my sympathies are altogether with the defendants, I fear that the verdict of acquittal can hardly be maintained.

In captivity, if sufficient space be allowed him, the Blue Titmouse thrives well, and soon becomes quite tame. At one time I kept a number in an aviary which adjoined the dining-room. By opening the window the birds had access to the room, and it was most interesting to see them exploring all the recesses of the plaster-work of the ceiling in search for unnoted spiders' webs.

This little bird is a most devoted and courageous parent. If an intruding hand invades the nesting-hole when the hen is sitting, she will at once attack it, hissing like a snake the while. The country boys name her the Billy-biter.

The Coal and Marsh Titmice bear a strong resemblance to each other, and are frequently confused. Each is of an inconspicuous greenish-olive hue, with glossy black head and white cheeks, but they may readily be distinguished by the fact that in the Coal Tit the white extends in a broad band to the back of the head, and the wings are also barred with white.

In times gone by the Coal Tit formed a fruitful



BLUE TITMOUSE

theme of controversy amongst ornithologists. In their great work, *Birds of Europe*, Messrs. Sharpe and Dresser claim that the British Coal Tit is distinct from the Continental and more generally distributed form. They therefore name the British bird, *Parus britannicus*, in contradistinction to the more widely-spread *Parus ater*. A difference of plumage certainly exists, the point at issue being whether this is sufficient to constitute a separate species. The editor of "Yarrell" declines to recognize *P. britannicus*, on the ground that a form intermediate between the two has been found in certain Scottish forests.

The Coal Tit is more reticent in its habits than either of the two species already dealt with. Although it may approach the homestead at times, it is none the less essentially a woodland bird. One often meets it in the solitudes, the quick "twee-twee-twee" falling sharply on the ear, as the small grey bird, with its black and white head alone conspicuous, flits into view. For a moment, after the manner of its kind, it depends back-downwards from a branch overhanging the path, then it drops quietly to the ground, following its investigations amidst the fallen leaves, or about the roots on the bankside. Very often little parties of Coal Tits may be seen mingling with the Blue Tits on the tree-tops, and sometimes accompanied by Golden-crested Wrens and Tree-creepers.

The sudden incursion of these bright little armies, hanging and tittering from every spray, and filling the air with their delicate note-calls, is one of the many interesting episodes which the bird-lover

comes to look for in his wanderings through the winter woods.

The Marsh Titmouse is one of the species which appears to be inaptly named. It certainly shows no marked predilection for marshy country; indeed, its haunts are practically the same as those of the Coal Tit. It is said to frequent the willows and alders on the margin of rivers, but this applies equally to the Coal Tit, and more especially to the Long-tailed. In its nesting habits its individuality is more marked, inasmuch as it occasionally hollows out its nesting site in a decayed tree, or builds in a cavity dug by a field-vole in a bank; never, like the preceding species, approaching farm- or other out-buildings in order to find a convenient cranny in some old wall.

It is not always possible to distinguish this species at a distance, although the absence of the white patch at the nape sets it at once apart when near at hand; but, in my experience, it is rarely seen congregating with the Blue Titmouse in the tops of the taller trees, and is altogether a less familiar bird than its near congener. In its choice of food, and in general habits, however, it differs little from the Coal Tit.

The Long-tailed Tit is one of the most interesting members of an interesting group. With the exception of the Golden-crested Wren, it is the smallest British bird, although the abnormally long tail gives the impression of much greater length. It is gentle and unobtrusive in its ways,



YOUNG MARSH TITS

asking nothing of the favour of man, and never approaching the homestead with the confidence of the Great and Blue Titmice; yet, in its own haunts, it is by no means a shy or distrustful bird. It has, I think, a greater affection for the low trees that fringe the running stream than any of its family. Often, when fishing, one hears far away the faint call-notes, like the tinkling of fairy bells. Wading deeply amongst the great mossy stones, the angler's appearance is inconspicuous, and, as he rests close to the line of the willows, the tiny bells draw nearer. Then the little party of Long-tailed Tits are seen flitting forward, alighting, one by one, with a soft "zee-zee-zee," upon the outermost sprays of the willows, almost within reach of the hand. Here they hang beneath the boughs, and perform many graceful evolutions, the long, white-lined tail and delicate, roseate hues, contrasting clearly with the fresh green leaves. In a moment more the leader flies on, followed by his silvery-voiced clan, rising and falling in single file, each resembling a miniature arrow bearing an unduly heavy head, rather than a living bird.

In its nest building, too, the Long-tailed Tit is worthy of special note. The task of framing a domed nest is one involving no small amount of skilled labour. The completed design must be clearly in the mind of the small artificer before the first twig is laid, for all the later stages depend on the first few steps. The Long-tailed Tit's nest, combining, as it does, all the qualities of warmth, security and beauty, is a model of pre-arrangement.

For twelve or fourteen days, both parents toil

incessantly, the female building, and the male bringing the materials, often from a considerable distance. Some idea of the extent of the task may be inferred from the fact that one interior alone contained 2379 separate feathers.

A suitable fork in a thick bush, or tree, where, curiously enough, some sprays of honeysuckle are usually found growing, and almost invariably near running water, is selected for the nesting site. Here the filaments of moss are laid, and the nest is woven in the ordinary cup-shape until the point where the entrance-hole is to be, is reached. Then the work is proceeded with at the back of the nest, and a thin framework is erected in the shape of a roof, which is gradually brought down to join the front, leaving the hole clear. At this stage the structure is most flimsy, and a heavy thunder-storm will beat it down, destroying in a few moments the labour of many days. When fully completed, however, and the great mass of lining feathers added, it becomes practically weather-proof.

Both birds rest in the mossy home at night, and the tips of their long tails may be seen projecting from the hole in the nest-side.

The family tie between these Titmice seems to be unusually strong. All through the autumn and winter the young cluster together upon a single bough at roosting time, when they appear a mere tangled mass of feathers.



CURIOUS NEST OF LONG-TAILED TIT

FINCHES

IN the interior of the larger woods, bird life is never so plentiful as upon the outskirts. The Finches especially, although many of them cling to the belts and coppices, and are rarely to be found in barren and exposed tracts of country, none the less shun the deeper recesses where the closely-growing boles and interlacing branches restrict their flight.

The Hawfinch is, perhaps, one of the most truly wood-loving of any of the group. Although he may be seen on isolated bushes in lawns and gardens, and in autumn may be found making destructive raids upon the fruit, he never strays far from the shelter of shrubbery and thicket, and on the slightest suspicion of danger, at once hides himself behind a screen of the densest foliage.

Few birds, indeed, are so difficult to approach as the Hawfinch. Even when one's attention is called to his presence by the sharp "twit-twit" proceeding from the bare branch of one of the tallest trees he appears to become at once aware that a possibly hostile eye is upon him, and he instantly departs, with swift, undulating flight, in search of some deeper seclusion.

Sometimes, however, when engaged amidst the pea-sticks or in the cherry trees, he forgets something of his habitual caution. See him now as he stands grasping the bough with his powerful claws,

and with massive, leaden-blue bill tearing down the fruit, his chestnut hues relieved by the black and white on his wings; a sturdy form compacted for strength rather than grace, yet truly a handsome bird. See him there for a moment, and note him well, for on the crackling of a twig he is gone, and one may travel far and wait long before so close an inspection be granted again.

Curiously, for a Finch, the nest of the Hawfinch is crudely and carelessly made. It is formed of twigs intermixed with lichen, and is commonly found on the branches of hawthorns, often at a considerable elevation. The eggs—four to five in number—are of a bluish-green, spotted and streaked with dark olive and brown.

At one time the Hawfinch was regarded as an occasional visitor merely to England, and it would certainly appear from the references of the older writers, that it was once far less common than it is to-day. Now it is known to be a resident breeding species in most of the southern counties, and its range has extended to the north, even to Northumberland.

Another true forest lover is the Crossbill. In times gone by, great mystery surrounded this curious bird. In many ancient documents his appearance is recorded, and like the Hawfinch, he would seem to have been regarded merely as an erratic visitor. Thus we read, "the yeere 1593 was a greate and exceeding yeere of apples: and there were greate plenty of strang birds, that shewed themselves at the time the apples were full ripe, who fedde upon

the kernells onely of those apples, and havinge a bill with one beak wrythinge over the other which would presently bore a greate hole in the apple, and make way to the kernells : they were of the bignesse of a Bullfinch, the henne right like the henne of a Bullfinch in coulour : the cocke a very glorious bird, in a manner al redde or yellowe on the brest, backe and head. The oldest man living never heard or reade of any such like bird : and the thinge most to bee noted was, that it seemed they came out of some country not inhabited : for that they at the first would abide shooting at them, either with pellet, bow or other engine, and not remove till they were stricken downe : moreover, they would abide the throweing at them, in so much as diverse were stricken down and killed with often throweing at them with apples. They came when the apples were ripe, and went away when the apples were cleane fallen. They were very good meate.”¹

Now we know that the Crossbill is a resident, occurring irregularly in most of the English counties, and nesting annually in certain wooded districts of Scotland, especially in Sutherland and Ross. Here, in these lands of “brown heath and shaggy wood,” where the closely growing firs cover the mountain sides from their base by the loch’s edge midway to their rocky summits, the Crossbill may still be seen by those patient enough to trace him to his haunts.

In these primeval forests travelling is by no means easy. Sometimes the firs spring from the sides of declivities well-nigh sheer, and fragments

¹ Quoted from Yarrell.

of rock and fallen trunks, green with the softest moss, bar the footsteps at every turn. At length, as we creep from the darker recesses, we find ourselves in the open. We have reached a heathery ledge bared to the sun and sky, the cliff here falling so abruptly and so far, that the tops of the highest fir-trees growing below barely reach the level of our feet. A vast and varied prospect is spread before us. Beneath, the great loch extends, dotted with innumerable isles, about the rocky harbours of which the Wild Ducks and Mergansers pilot their tiny fleets. On the farther shore the white line of the road can be made out as it rises and falls amidst the dark green of the heather. To the right, in the valley, we can just catch the winding gleam of the river above the point where it enters the loch, and around and above all, tower the innumerable hills, mere rocky screes and heathery slopes in the nearer distance, but as they draw to the horizon, taking on fainter hues of azure, and rose and gold, and seeming to be fashioned in mist.

But as we gaze we become aware of certain bird-forms moving in the fir-trees beneath us. The little party come forward like Titmice, the leaders uttering a sharp "zip-zip-zip" as they alight. They seem to be utterly devoid of fear, and standing a few feet above them, we can mark the varied colour of their plumage and the curious twisted formation of the bill. Some are of a greenish hue mottled with brown, and others, the adult males, of a beautiful red tinged with faint orange and green, with darker wings.

Here they remain, grasping the boughs parrot-

wise in their powerful feet, hanging back-downwards, and extending the body in any direction to reach with the bill some desired spray; cutting the cones from their setting and holding them upon the branch, where they may be torn open and the seeds extracted; throwing themselves, indeed, into every variety of attitude as they feed happily together, their variegated colours clearly contrasting with the dark green tones of the fir plumes.

In a little while they flit forward over the tree tops, and the "zip-zip-zip" falls more faintly on the ear. Now it ceases altogether as the little party of nomads travel on, moving from forest to forest and, save in the brief nesting season, knowing no settled home.

The Crossbill breeds early, usually in February or March. The nest is placed on the horizontal branch of a fir or other tree close to the stem, and is formed of moss, dry grass and lichen set on a base of twigs. The eggs are four in number, and are of a bluish-white, sparsely spotted with brownish-red.

In addition to the common Crossbill, three other species, the Parrot, Two-barred and White-winged, are recognized as British. These are, however, of the rarest occurrence.

Of the Finches which cling to the woodlands at all seasons of the year, and which never join the wandering flocks which in winter seek their food in bare fields and treeless places, the Bullfinch is one of the more consistent. It is a rare thing to meet him at any considerable distance from his

loved coppice. Even when tall hedges intersect a country otherwise devoid of wood, he is not at home. Although he may be seen feeding upon the seeds of the dock and other plants which grow on the edges of moors and commons, his true haunt is never far away from the leafy recesses into which he may retire at the first appearance of danger.

The cock Bullfinch, with his jet-black head, pink breast and ash-grey back, is so handsome a bird that he at once arrests attention. It is always a delightful thing when wandering in some winding lane in a land of orchards and flowering hawthorns to hear his faint call-note, and to catch a glimpse of the broad bar of white above the black tail, as, with his sober coloured mate, he flits along the hedgeseide. He is a wary bird, however, showing little of the confidence in man which so many of his kin display, and if one approaches without circumspection, he at once disappears in the seclusion of the nearest wood. Draw near to him carefully, however, taking advantage of a sudden bend in the way, and one may see him in his habit as he lives. On the deep hanging bank, overgrown with tangled grass and trailing branches of hawthorn and honeysuckle, the dock plants grow high in the autumn, and stand with their pyramids of brown seed clear against the dull green of the surrounding herbage. As one rests in a hidden nook, the Bullfinch suddenly drops from the hedge and clings to the stem which bends beneath his weight. Here, on his swinging perch, he picks up the seed with great rapidity, and one has time to note the glowing hues of his plumage and also to realize the havoc even



BULLFINCH

small numbers of these birds can bring about in the budding gooseberry-bushes and cherry-trees. For the most ardent bird lover must admit that the Bullfinch, beautiful as he may be, is a terribly destructive bird, and when the gardener finds the fruit-bearing trees entirely denuded, he can hardly be expected to accept the kindly theory that every incipient blossom contained the eggs or larvæ of some deleterious insect. At the same time, it must be remembered that the Bullfinch performs an immense service in the country by destroying the seeds of numberless noxious plants, which would otherwise be spread broadcast over the cultivated grounds, and in this way his adverse balance is somewhat redressed.

The fondness of the Bullfinch for the seeds of the dock renders him an easy prey to the bird-catcher. A bunch of these plants is bound about a sharpened stake, which may readily be driven into the ground wherever the birds are heard or seen. A call-bird in a small cage is placed beneath the drooping sprays, and to each seed-plume a limed rush is affixed. In a few moments the notes of the decoy are responded to from the wood, and the wild bird flies nearer and nearer, and at length descends boldly on the fatal sprays. With the exception of the Robin, which attacks the caged decoy with unbridled fury, believing it to be an invader, few birds are led to their undoing more easily than the Bullfinch.

The nest of this species is small in relation to the size of the bird, and is somewhat unusual in construction. A platform of twigs most carefully in-

terlaced is first set up, and upon this a tiny cup of root fibres is woven, the fibres being of considerable length and cunningly wound round and round. The eggs, four to six in number, are streaked and spotted with reddish-brown upon a bluish-white ground. The nest is placed near the extremity of some leafy branch, often of an evergreen, the yew and box being favourite trees. Indeed, the sitting hen has so strong a preference for dense foliage, that if a single holly spray be found growing in a hawthorn hedge, she will constantly select this for the hiding of her nest.

In northern and eastern Europe, a larger and more brilliantly coloured race of Bullfinches exists, and as these have been known to occur in England, they are included by Lord Lilford in the British list under the title of the Northern Bullfinch.

Although in winter they wander further afield than any of the preceding species, the Greenfinch and the Chaffinch may both be properly accounted birds of the woodlands. The Greenfinch is not commonly regarded as a distinguished songster, his spring notes consisting mainly of a pleasant but somewhat monotonous "teem-teem-teem," uttered from the highest branches of some leafy tree. Wordsworth, however, in greeting again the birds and flowers of a returning summer, addresses him in terms of the warmest eulogy.

"One I have marked, the happiest guest
In all this covert of the blest ;
Hail to thee, far above the rest
In joy of voice and pinion.



GREENFINCHES



YOUNG GREENFINCHES

Thou, linnet : in thy green array
Presiding spirit here to-day,
Dost lead the revels of the May,
And this is thy dominion.

Upon yon tuft of hazel trees
That twinkle to the gusty breeze
Behold him perched in ecstasies,
Yet seeming still to hover :
There : where the flutter of his wings
Upon his back and body flings
Shadows and sunny glimmerings
That cover him all over."

Perhaps it is in his recognition of the joy of spring rather than in his song that the Greenfinch is remarkable. Usually a somewhat stolid bird, the cock now becomes a changed character, and forgetting his ordinary business-like flight, he actually gambols in the air, soaring in wide semicircles, singing the while, and displaying to the uttermost his golden and green plumes, now at their best and brightest.

The Greenfinch is a late builder, and the nest, formed mainly of roots, is placed in bushes and high hedges : rarely in trees. In winter, when the large flocks are formed, the sexes, as in the case of the Chaffinch, are said to separate, but this can only apply to certain localities, and is by no means the general rule.

Although the Greenfinch is one of the commonest woodland birds the Chaffinch is still more familiar. Not by his abundance alone, but by his perfect friendliness and his charm of plumage and of song, he strikes the foreign observer at once as

being the most notable bird of English woods and park lands. "Nothing I had read or could find in the treatises on British ornithology," writes Burroughs, in his *Impressions of some English Birds*, "had given me any inkling of which was the most abundant and vociferous English song-bird. Throughout the month of May, and probably during all the spring months, the Chaffinch makes two-thirds of the music that ordinarily greets the ear as one walks or drives about the country. In both England and Scotland in my walks up to the time of my departure, the last of July, I seemed to see three Chaffinches to one of any other species of bird. The male is the prettiest of British song-birds, with its soft, blue-grey back, barred wings and pink breast and sides. The Scotch call him the 'Shilfa.' At Alloway there was a Shilfa for every tree, and its hurried and incessant notes met and intersected each other from all directions every moment of the day like wavelets on a summer pool. So many birds and each one so persistent and vociferous accounts for their part in the choir. The song is as loud as that of our orchard starling, and even more animated. It begins with a rapid wren-like trill, which quickly becomes a sharp jingle, then slides into a warble, and ends with an abrupt flourish. I have never heard a song which began so liltingly and ended with such quick, abrupt emphasis. The last note often sounds like 'whittier' uttered with great sharpness; . . . the song, on the whole, is a pleasing one, and very characteristic, so rapid, incessant and loud."

Although the British observer may not fall in



CHAFFINCH AND YOUNG

with every opinion here expressed, especially that wherein the Chaffinch is credited with two-thirds of the music of May, he will, nevertheless, agree that the description is, in the main, a true one. It is certain that in English parks and pleasure grounds this species is by far the most numerous of any of the British finches. In the woodlands surrounding Bolton Abbey, the once "stately Priory on the Field of Wharfe," Chaffinches abound to an amazing extent. At every turn they may be seen, sauntering on the white drives and filling the air with their sweet leisurely notes; barely moving aside to evade the passing vehicle, or with a movement of white-lined wings springing to mossy wall or overhanging bough, with a sharp "pink-pink" of protest at their brief disturbance.

So tame are they that they gather about the rustic tables where the visitors partake of their *al fresco* meals, and frequently alight upon the tables themselves.

The nest of the Chaffinch is well known as one of the models of avian craftsmanship. It is formed mainly of wool, and built in simple cup-shape, but on the outer surface green mosses and different lichens are woven in with such skill and neatness, that the finished form has the appearance of being carved from some hard substance rather than of a nest built up, little by little, from odd scraps of loose and parti-coloured materials.

The question of the migration of the Chaffinch is a somewhat vexed one. Many years ago, Linnaeus stated that in Sweden the hens left the country in winter while the cocks did not: hence his applica-

tion of the title *cælebs* to the species, in reference to the bachelorhood of the males left behind. Yarrell tells us that the evidence of later Swedish authorities does not altogether confirm this observation, but the fact remains that, occasionally, and in certain localities, flocks of Chaffinches appear in England in winter which consist almost entirely of hens.



NESTING SITE OF THE RAVEN

(Photo by J. Atkinson)

CROWS

OF the nine British members of this remarkable group, two, at least, the Chough and the Raven, cannot now be described as tree-haunting birds. True, the Raven occasionally builds in the fork of some tall tree, the great mass of sticks of which the nest is composed growing annually larger, as in each recurring January the parents repair the home for the reception of the season's eggs; but, for the most part, the birds resort in the breeding time to the sea-cliffs or to the precipitous side of some rocky mountain. Much has been written of the Raven. In poetry and tradition he appears always as a bird of ill-omen, his croak presaging death and general disaster. Many times have his habits been described; his practice of nesting when the mountain slopes are still covered with snow; his strange aerial gambols and the ferocity with which he will attack the sheep "cast" on the hillside. For, like others of his kin, he is a born misdemeanant. With great natural abilities, he could easily gain an honest livelihood, but even in captivity with ample stores provided, he prefers a path of crime. Dickens describes a tame Raven, the famous original of the weird bird in *Barnaby Rudge*.

"He had, from the first, as Sir Hugh Evans said of Anne Page, 'good gifts,' which he improved

with study and attention in a most exemplary manner. He slept in a stable—generally on horseback—and so terrified a Newfoundland dog by his preternatural sagacity, that he has been known, by mere superiority of genius, to walk off with the dog's dinner unmolested from before his face."

Like most malefactors, however, he came to a bad end, notwithstanding his intelligence. His knowledge of chemistry did not extend to the properties of white lead, and he died after extracting a pound or so from a spot where the workmen had carefully hidden it.

The Chough, distinguished by his red feet and red curved bill, is a true rock-dweller, and never appears to alight upon trees at all, but the remaining seven, including the rare Nutcracker, are all, in a greater or less degree, birds of the woodlands.

The first of these, the Carrion Crow, is at once set apart from the more commonly known Rook by the fact that the base of the bill is covered with fine hair-like feathers, and lacks altogether the curious wattled appearance which marks the adult Rook.

These Carrion Crows offer a problem to those engaged in the classification of birds which is by no means easy of solution. The Hooded or Grey Crow at first sight appears obviously to be of a distinct species. In the first place, its plumage is parti-coloured—grey and black—and differs essentially from the total blackness of the true Black or Carrion Crow. Again, the Grey Crow visits England in winter only, whereas the Black, when not

resident, is a summer immigrant, and is known as a regular breeding species in this country. Furthermore, the habits of the two birds are in many ways dissimilar, the Black Crow being distinctly a tree-loving bird, whilst the Grey is rather a frequenter of moors and waste places, especially of low hills by the sea, and even of the shore itself.

Yet to set against this, we have the curious fact that the two birds mate freely together, and that in the same nest, young of both the black and grey forms are found.

These hybrids, if they may be so called, are said to be fertile, a circumstance which would go far to prove that the original parents were not of distinct species, but the evidence in regard to this is by no means clear.

On these grounds, however, and by reason of their structural identity, the editor of Yarrell concludes that no specific distinction can be maintained. At the same time, a dividing line between these two types of Crows appears to be so firmly drawn by Nature, that, strict scientific accuracy apart, one cannot help sympathizing with Lilford, Saunders and other authorities, who still prefer to treat the Black and Grey Crows under separate headings.

The Black Crow has none of the social qualities which distinguish the more familiar Rook. He and his sombre mate confer alone together, seeking no fellowship with man, and nesting alone in some remote tree. Recognizing the fact that they are outlaws in an altogether hostile land, they pursue their nefarious course with the

utmost vigilance. Together they may be seen, with slow, heavy flight, quartering the ground carefully. They have no hawk- or owl-like skill in capturing strong living prey, but an unfailing instinct seems to lead them to the place where any weak or helpless thing chances to be lying. When the coast is clear, a turn may be taken on the outskirts of the farm buildings or in the stackyard, where a stray chicken or duckling may be picked up. Away in the mowing-grass a tiny leveret may be crouching, or amidst the brambles and nettles of the hedgeside the eggs of a Partridge be found. But the Black Crow is no epicure. The decaying remains of a rabbit killed by a weasel afford him quite a satisfactory meal, and failing this, any neglected heap of *débris* will be investigated, including the refuse of fish cast aside by the fishermen on the shores.

As a scavenger the Black Crow has distinct uses, but these are rendered nugatory by his strongly marked predilections for robbery and murder. So it is that his path is hedged about with poison, gun and gin, the keeper rarely failing to send a charge of shot through any nest he may chance upon, and thus, persecuted at all seasons, especially in the breeding time, the Crow, like the brown rat, only averts extinction by the development of the most extraordinary qualities of watchfulness and resource.

Caw, caw, caw. How the "great brotherhood of lofty elms" resounds with the incessant, impatient cry of the Rooks! From the first streak of dawn

the toil of the black community begins, and even when night falls, dim shadows may still be seen in the upper gloom, returning from a distance, or moving restlessly about the darkened tree-tops.

All through the early days of winter the rookery is deserted, the birds amalgamating in vast congregations, and finding harbourage in more distant woods, and the tenantless nests are beaten and well-nigh dismantled by the blasts. Week after week goes by, and no single Rook comes even to look at the scene of his former activities. Early in January, however, at about 8 a.m., a small party numbering from ten to twelve, arrive. They remain for a little while perched upon the topmost boughs; then they depart, and are seen no more for the day. On the following morning they appear at exactly the same time, again silently to survey their deserted homes, and to depart as before.

So they come and go through the early part of February, their numbers increasing and the periods of their stay becoming longer. As February merges into March, many remain throughout the whole day. At night, their dark forms can be made out roosting near the nests, and in a little while the whole colony are in possession.

At day-dawn they are at work, some dropping to the ground to collect fresh sticks, others faring further afield, and industriously, and by repeated effort, biting off the slenderer boughs from the more distant trees, to be carried in ungainly haste to the nesting sites.

So the work of building and repairing proceeds amidst constant clamour and with many inter-

ludes of grotesque courtship. In the small groups which dot the green of the meadow, the suitors appear, expanding their tails fan-wise, and with contorted forms and reiterated caws, seeking the attention of the hens, which, meanwhile, move quietly in the grass apparently oblivious of their presence. Sometimes the cock will ascend to some lofty bough and suddenly distend his tail-feathers with a rattling sound, endeavouring at the same time to modulate his hoarse voice after the manner of a singing bird. But soon the realities of domesticity work their sobering effect, the clamour dies down, and amidst the still leafless limbs the dark tails of the hens can be seen projecting beyond the nest-sides, as they settle themselves to the patient business of incubation.

The gregarious habits of Rooks and their manner of forming easily observed colonies when nesting, have given rise to manifold writings, and to the expression of varied opinions. It has been stated that a distinct system of government, on very human lines, may be traced in these communities; that matters affecting the commonwealth are discussed in solemn conclave; that thieves are evicted, and that other malefactors are duly tried by tree-top courts-martial, and, if need be, promptly executed, the terms rook-parliament, rook-tribunal being freely used. That Rooks, as though moved by a common impulse, sometimes destroy the nests of their fellows and make fierce onslaughts upon the owners, is recorded by many observers. Mr. Ticker Edwards in *Ways of Nature*, for example, writes: "Just as there is always a black sheep in

every fold, there seems to be in every rookery one of the swart brotherhood whose blackness goes all the way through. Sometimes in the midst of the busy cawing and bustle of the day, a sudden hubbub will arise. Round one of the nests a fierce conflict is waging. Half-a-dozen birds have launched themselves upon it, rending it to fragments and casting it like chaff to the ground, while others are chasing the luckless proprietors, following them through the blue air with a sound not wholly unlike that of a pack of hounds in full cry. It is difficult to make sure of the motive for this determined eviction, but in all likelihood a pilferer from other nests has been caught at his work, and destruction of his own home and banishment from the colony is the ordained penalty of the offence."

Yarrell, too, states that it has been repeatedly noticed that when a pair of Rooks attempt to build on a tree previously unoccupied, and at a distance from the main body, the rest often destroy the nest. Personally, although from my window I have watched the movements of Rooks for many years, I have never been fortunate enough to witness the first of these occurrences, nor, indeed, the latter, with sufficient clearness to enable me to decide with certainty whether the nest-destruction was an act of retributive justice on the part of the community, or a mere whim of the owners themselves. On one occasion two pairs of Rooks built in a detached plantation some distance from the rookery, and each brought off a brood in safety. In the succeeding spring four birds returned and laboriously rebuilt the nests, working for several days. One morning

I saw what I took to be the original builders—in any case the numbers were not increased—toiling feverishly, and in an incredibly short time not a stick remained in the trees. Then the four birds departed, never to return.

In regard to the so-called parliaments, extraordinary gatherings of Rooks occur at times, usually shortly before roosting, when many hundreds may be seen assembled, in more or less orderly formation, in the meadow; all comparatively silent, and their demeanour on these occasions certainly gives colour to the suggestion that they are engaged in some serious discussion. It has been said that these gatherings, during which certain of the birds ascend to very great heights and suddenly drop headlong, twisting as they fall, a performance many times repeated, are usually followed by a heavy storm of wind or rain.

One interesting feature in the history of the Rook is his affection for the neighbourhood of man. A rookery far remote from any human dwelling is hard to find. Although his young are shot down, season by season, the Rook still returns to the ancestral trees about the homestead, and once established, few measures short of a wholesale felling of the timber suffice to drive him away.

Many legends—some of which appear well corroborated—relate to the Rook's identification with the fortunes of the house to which he attaches himself. From time immemorial a rookery existed at Swinsty Hall in the valley of the Washburn. When the family in whose occupation the Hall had been for many generations, found a new home at the

opposite side of the valley, a mile or more away, the Rooks also transferred their abode, and settled again in a belt of trees within a hundred yards of the old proprietor's gates.

An incident of a somewhat similar character is recorded by Yarrell. In 1824 the late Lord Home wished to destroy a rookery near Coldstream, and after three years, effected his purpose. During the remainder of his life not a single Rook's nest was built on the property, but in 1842, the first spring after his death, the birds returned to the neighbourhood of their former haunts.

These incidents might be multiplied indefinitely, but whether they are due to some occult knowledge of human affairs, or merely to coincidence, are questions which will probably be decided by the personal bias of those concerned.

That Rooks are not to be deterred from building by the populous character of their surroundings is shown by the fact that nests are still to be found in London, within the four mile radius, and that, in the centres of other large cities—Edinburgh, Manchester and Newcastle-on-Tyne, for example—well-tenanted rookeries existed in quite recent times, even if they have now altogether disappeared.

Although rookeries are usually associated with fairly tall trees, other situations are sometimes chosen, nests having been found in holly-bushes, pollard willows and chimney stacks, and, in some rare instances, even upon the ground.

In the matter of diet the Rook's taste is varied. That he destroys vast quantities of slugs, worms and various insects is unquestionable, but, none the less,

a careful inquiry instituted at the instance of the Highland and Agricultural Society, appears to prove him to be a granivorous rather than an insectivorous bird. Sir John Gilmour, Bart., of Montrave, sets forth the monthly dietary of 355 Rooks shot from March 1894 to February 1895 inclusive. This he shows to consist of at least 56 per cent. of grain. Although in the fields it may be noted that the flocks of Rooks follow the ploughman rather than the sower, and a saving must accrue to the farmer by the destruction of wireworms, etc., it is still clear that wherever Rooks are allowed to increase unduly, they must inflict a severe tax upon the land.

The bare wattled appearance at the base of the Rook's bill has given rise to considerable controversy. In the young birds the base is feathered as in the Crows, and it is only at the second moult that the grey, parchment-like excrescence appears. It has been stated that the feathers are worn away by the bird's habit of digging in the earth, but this explanation fails, inasmuch as Rooks in captivity, where the possibility of digging has been denied, have still developed the peculiarity. The more reasonable theory is that in the long processes of evolution, Nature, finding the feathers in the way, has gradually brought about the change, just as the head and neck of the vulture is denuded in order that they may be plunged with less detriment into the carcasses of the prey.

The Rooks, and, indeed, all the Crow family, rise awkwardly from the ground and appear to have difficulty at first in dealing with their legs. One

peculiarity in the Rook's wing—not, I think, to be noted in the same degree in any other bird—is that in flight it appears to curve upwards towards the tip.

Although

“a great frequenter of the church,
Where, bishop-like, he finds a perch
And dormitory too,”

the Jackdaw is still a tree-haunting bird, and may constantly be met with in the English woodlands. In the ancient oaks and elms which dot the parklands, he finds many rifts which serve him for a nesting place, and throughout the long summer day, he may be seen searching busily in the grass below for materials or for food, soon rising again to the upper branches, where his glossy black plumage may be caught gleaming amidst the green of the leaves. A bold predatory bird, his manners display an amount of cool impudence which disarms criticism, provided, indeed, that the critic be not the victim of his nefarious ways. His fellow-creatures, feathered and furred, are treated as though they existed for his sole use and benefit. When the Rooks have toilsomely amassed a great heap of sticks to form their dwelling at the summit of the elm, the Jackdaw appears upon the scene. He calmly sets to work to prepare himself a home in the basement, as it were, carelessly tearing out the materials midway in the structure, and rearing his brood in his neighbour's tenement without the slightest respect for the rights of property, the owners, bewildered, perhaps, by his audacity, offering, so far as I have been able to see, no protest

whatever. Indeed, as the Jackdaw mingles with the Rooks, in both field and rookery, upon terms of the greatest amity, it may be that the latter tolerate his escapades in consideration of his gay companionship.

Again, a shaggy pony may be browsing peacefully on the green beneath the oak-trees in the park. To him descends the Jackdaw, alighting upon his back, and with many strenuous tugs, takes a beakful of hair from the animal's coat. When this has been borne to the tree as a lining for the nest, Jack returns for more. In vain the pony objects, shrugs himself impatiently, departs to a more distant part of the pasture. He is steadfastly followed and denuded, until he has parted with sufficient of his covering to supply his persecutor's need.

Yet, notwithstanding these exhibitions of evilly directed intelligence, the Jackdaw, in some ways, shows a curious lack of the most ordinary common-sense. Most hole-nesting birds are content to lay their eggs in the dry dust of the cavity, or to place within it nothing beyond a soft lining. The Jackdaw piles in the hole, great masses of altogether unnecessary sticks, and in introducing these his incapacity is most marked. Often he will balance himself for a quarter of an hour in the ungainly efforts to get a three-foot stick into a twelve-inch hole, holding the stick carefully in the middle the while, and finally permitting it to drop to the ground on finding the problem insoluble. Or he will labour for many days, dropping sticks through the loophole in the masonry of some old castle, until they form a vast litter in the deeps below, and then



JACKDAWS

abandon the enterprise on finding that the work appears interminable.

In some respects the Jackdaw's stick-collecting propensity appears to be a passion rather than a reasoned effort in the direction of nest building. A nest is recorded, built in seventeen days, in the bell-tower of Eton College Chapel, which formed a solid pillar ten feet in height, and a second completely blocked the tower stairs in Hillington Church in Norfolk, rising to twelve feet and amounting to about a cartload in bulk. If a nest merely had been desired all these herculean labours might have been avoided by the simple expedient of selecting a ledge at a sufficient elevation to begin with.

Although the Jackdaw finds a resort in so many localities, especially in church towers, and in crags which overhang the river or the sea, what may be described as his true home is the dismantled castle or abbey, grey with age and well-nigh buried in the trees. Here, indeed, Time has so changed the cruder handiwork of man, that the ruins seem to have entirely reverted to Nature's keeping, and now form little more than a rocky and picturesque setting for the ivy and the varied vegetation which spring from the interstices.

On what was once the smooth pleasaunce, worn by the feet of warrior or monk, beds of tall-growing nettles appear, where the ubiquitous rabbits burrow, heaping the brown earth upon the green. Within the cloistered hall, the blue sky may be caught between the leaves of trees, which, growing high on the slope behind, stretch their branches over the roofless walls. The ledges and sills are covered with

soft green moss, and in every embrasure, grasses grow, sometimes intermingling with the sprays of the wild-rose. Within the dim aisles, the wings of the Stock-Dove gleam as she sails through the carved window to seek her nest. Many Starlings fly busily in and out or alight chattering on the ledges, and from the overhanging trees the "coo-roo-roo" of the Wood Pigeon comes softly. Finding foothold in the grass-grown masonry far aloft, a mountain-ash grows horizontally, and here, as well as upon the walls and turrets, the Jackdaws swarm in noisy hordes. Sometimes they crowd upon the limb and rest for a time in comparative silence; then, as though at some prearranged signal, they all burst into the air, making the monastic solitudes ring with their reiterated cries.

To my mind the Jackdaw never appears in his true habitat save when he is surrounded by shattered towers and by ivy-covered walls.

With many jackdaw-like qualities, yet with characteristics altogether his own, the Magpie has a notable place in bird-history. He is a familiar figure in many countries, and wherever he appears, legends have been woven about him by the superstitious. Unlike the Raven, he is not a constant bringer of ill-luck, his influence on futurity depending, somewhat curiously, on the numbers in which he chances to be seen—

"One for sorrow and two for mirth,
Three for a wedding and four for a birth;"

and although in certain localities odd and even



MAGPIE



YOUNG MAGPIES

numbers may be seen, day by day, for months, without depressing results following on the one hand, or exceptional exhilaration on the other, the wiseacres still point to any isolated coincidence as a conclusive proof of the truth of the adage.

The distribution of the Magpie in Great Britain is most erratic; in some districts it is extremely rare, and in others a distinctly abundant species. In Ireland, at one time, it seems to have been entirely unknown, a fact upon which certain ancient writers appear to have congratulated themselves. "Ireland hath neither chattering Pye nor vndermining Moule," wrote one Moryson, in 1617; and in the "Tracts" published by the Irish Archæological Society in 1841, it is stated, "There is here neither mol, pye nor carren crow." Now the Magpie is an abundant bird in Ireland.

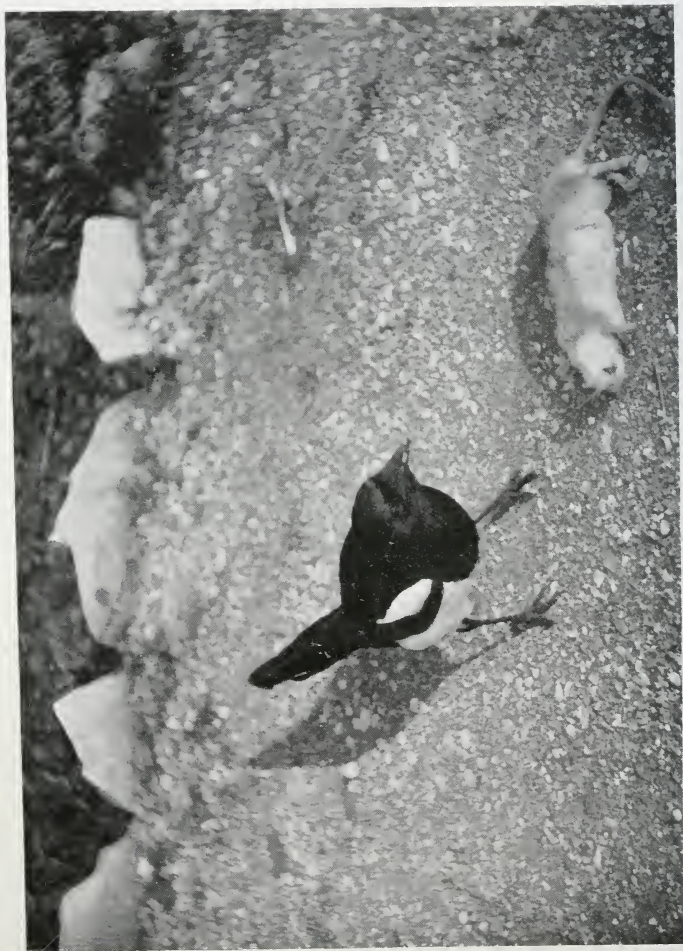
A century ago it appears to have been plentiful throughout all parts of England, and Montagu states "that though shy it rarely removes far from the habitation of man." Writing eighty years later, the editor of Yarrell points out that this was no doubt true of the bird at that period, but "a Pie near a human dwelling, so far as England is concerned, is now-a-days hardly to be seen from one year's end to another's." This statement, again, does not hold good at the present time, for in the suburbs of certain densely-populated towns—Leeds in particular—Magpies have increased amazingly in numbers, making their nests in the shrubberies and gardens, and constantly appearing upon the lawns and about the buildings.

The fact, however, that these birds rapidly

diminish in number in one locality and increase in another is not surprising. Like the Carrion Crow, an outlaw, the Magpie is constantly harassed in all places where game is preserved. In the breeding time every nest is marked, and the parents and young, if possible, destroyed. The persistent use of traps and poison in the winter would speedily complete the work of annihilation if the Magpie were a bird of less intelligence and resource. But he soon appears to grasp the situation, and abandoning the fields and coverts of the countryside, he seeks refuge in small pheasantless domains in close proximity to the towns, where, in many cases, his beauty and sprightliness render him a welcome guest, and where his small misdemeanours may be readily overlooked.

The destructive character of the Magpie, especially where eggs and young game-birds are concerned, cannot be gainsaid, and his instinct in discovering hidden prey is at times uncanny in its omniscience. After shooting an outlying field, I once concealed two dead rabbits in the cavities of a rough stone wall, a hundred yards apart, placing stones upon them so that no vestige of their fur could be seen. At the time no Magpie was in sight, but on returning half an hour later, I saw the black and white wings drooping across the meadow. In each case the stones had been thrust aside, and the eyes of the rabbits carefully extracted.

The Magpie's nest as a defensive stronghold could not well be improved upon. It is dome-shaped, and built amidst the densely growing but thinner branches of the tree, the hole by which the bird



MAGPIE AND RAT



YOUNG JAYS

enters being always on the side away from the tree-trunk. Thus, though the climber may reach the base of the nest, he finds himself confronted with stout outworks of spiny thorns which are difficult to tear away, and the hole through which easy access might be gained is ever far from the lacerated hand.

That the Tawny Owl often takes possession of the deserted nest of the Magpie is well known. But it would further appear that conflicts sometimes arise between the two birds as to which shall become the owner. Mr. Metcalfe tells me that he once found a Magpie's nest containing three eggs, and also two eggs of the Tawny Owl. It would appear that the Owl had taken illicit possession and had subsequently been ejected with violence, signs of the struggle remaining in the shape of the Owl's feathers which decorated the surrounding branches and the thorny spikes of the nest.

One bird there is that for me always adds a deeper interest to sylvan scenery—the Jay.

Turning from the dusty highroad, a little gateless lane winds through the wood. It is so rarely used that even the wheel-tracks of the timber wagons are now overgrown with grass. On the low banks primroses spring amidst the young fronds of the ferns, and growing about the green-moulded boles of the taller trees the alders and hazel bushes form quite a thick hedge. On the banks the Robin and Willow Wren nest, season by season, and a Green Woodpecker may sometimes be seen drooping across the way to alight upon one of the lower trunks. As

one follows the little track, the interlacing boughs and leaves on either hand appear well-nigh impenetrable, but at length a break is found in the tangle—the run, it may be, of a hare or a fox—and by following this one may reach the inner recesses of the wood.

Within, the coppice still grows thickly, and it is often hard to thread one's way through the stiff branches, but one comes at last to an open space, a tiny dell, where a fallen tree-trunk, decayed and moss-grown, lies amidst the bracken and dead leaves.

It is silent here; sometimes the faint cry of the Wood Wren comes from some distant tree-top, but, for the most part, there is no sign of bird life. One may wait long—half an hour or more—and see no trace of a moving wing. At length, slight warbling notes come from the deepest part of the thicket, checked instantly and followed by jerky sounds, almost like words in some unknown tongue imperfectly articulated. Amidst these one dimly recognizes the cries of familiar birds and animals, as in the chattering of the Starling, but here the tones are so low and rapid that the ear can distinguish nothing clearly.

Anxious to get on more familiar terms with the strange musician, we creep, as silently as may be, through the underwood. But our woodcraft avails us little. Through a vista in the leaves, we catch the barest glimpse of the blue wing-plumes and the white patch on the back of the Jay as he seeks new solitudes untainted by the presence of an invader.

These notes of the Jay are not, I think, commonly



JAY



JAY ON NEST

heard, the harsh screaming cry being much more familiar. For the Jay is a bird of extremes. At certain times of the year it is one of the most noisy as well as one of the wariest of its race. But from the moment the nest is made it relapses into absolute silence, and few sitting birds will permit so careless and so near an approach.

Mr. Metcalfe's photograph was taken at the distance of a couple of yards, and the Jay, when posing for her picture, showed not the slightest disposition to leave.

Although the Jay is by no means free from evil propensities in the way of egg-stealing, it is to be hoped that an increasing love of Nature will induce the owners of British woodlands to preserve him from extirpation. In the matter of wild birds and flowers they are the trustees of posterity, and the destruction of so beautiful and interesting a species is a crime which their children may not readily forgive.

DOVES

IN the deeps of the woodlands, a little path winds, untended, and overgrown with soft green moss like a carpet. Straggling thickets—chiefly of alder—grow on either hand, and here the Blackcap and the shy Garden Warbler may be heard singing, or seen moving furtively in the leaves. Sometimes a Pheasant crosses the little track, standing resplendent for a moment, and then disappearing in the undergrowth. High trees rise from amidst the alders, over-arching the way, and dappling the path with a network of shadows. From the upper branches comes a soothing sound, a sound in perfect keeping with the serenity of the wood—"coo-coo, roo-roo," louder at first, and sinking at the close into the merest murmur. Soon one gains a glimpse of blue-grey plumage high amidst the leaves, and the Ring-dove may be seen bending low and crooning upon the bough. In early spring, the soft coo may be heard almost the whole day long, but, as summer advances, it becomes intermittent, or ceases altogether. It is strange that the Wood-pigeon, as the Ring-dove is commonly called, loving, as it does, to rest on the loftiest trees, and being so wary a bird, should descend to such low elevations in its choice of nesting site.

Close to the path, the ground at one point sud-

denly falls away. Stone has been taken from this place at some time to repair the walls about the estate. This must have been long ago, for all trace of the crude workings of a quarry has disappeared; there is nothing now but a deep woodland hollow, the scattered fragments of stone being covered with moss and partly overgrown with brambles, whilst in June the track, once rutted with the wheels of the stone-carts, has been turned by time into a sloping glade, filled with ferns and bluebells. Here, small oaks and alders, with an occasional holly, grow freely, and to this lowly spot the Wood-pigeons droop from the great trees around, and form quite a little colony of nests, none more than twelve or fifteen feet from the ground.

Leaving the path, one may creep through the brushwood to the steepest side of the quarry, and look down through the gaps in the leafage right upon the nests. The platforms of dry sticks which the pigeons erect vary very much; when originally made they are often so flimsy that they would seem to be insufficient to support the sitting bird; but, as in many cases they are repaired season by season, they become in time fairly solid structures.

Carefully sheltered in the thicket, we may soon hear the rustling wings of the great pigeon as she glides through the branches, always approaching from the same direction, and may see her standing upon the nest-side, stretching out her neck as she proceeds to feed her clamouring young. They, with beating wings and querulous cries, thrust their bare bills into the throat of the parent, her crop

serving as a feeding-bottle, and she thus supplies them with its half-digested, curd-like contents—the pigeon-milk of the more observant rustics; a discovery which at one time brought upon them the ill-merited scorn of the less well-informed.

The young Wood-pigeon, seen in the nest, is one of the most ungainly and helpless of birds. Bare of feathers, blind for nine days, and utterly dependent upon the care of his parents for several weeks longer, it stands in marked contrast with the young of the game-birds, or of the Waterhen, which, with bright eyes, and clad in a garb of serviceable down, are able to take up the battle of life at the moment they emerge from the shell.

The Wood-pigeon is one of the species which has benefited by the strict game preservation of these latter days. Fir coverts, to which Pheasants resort, are now so jealously guarded, that they form sanctuaries throughout the length and breadth of the land, and here the Wood-pigeon, together with many of the lesser birds, find a harbour of refuge where they may rear their young in the most perfect security. Increased cultivation of the land has also done much to extend their range, so that to-day they are an abundant species in many localities—East Lothian, for example—where a century ago they were altogether unknown.

Vast hordes of immigrants, too, from Scandinavia and north-eastern Europe, visit this country in winter. These are said to be smaller, darker in colour, and somewhat differing in their manner of flight from the home-bred birds, and, notwithstanding the incessant war waged against them by the



YOUNG WOOD-PIGEON IN NEST



YOUNG TURTLE-DOVES

aggrieved agriculturists, their numbers appear to increase rather than to diminish.

The Stock-dove is another tree-loving bird, but one which differs materially from the Ring-dove, both in appearance and in habits. In the older English parks, where the ancestral oaks arise in isolated groups to give shelter to the deer, one or more trees in each are found blasted by the storms. The upper branches of these may still give signs of vitality, but the great rifts in the lower trunks, and the dead limbs standing starkly out amidst the sparse foliage above, show that their days are numbered.

These decaying trees offer attractions to many species of birds. Here the Green Woodpecker comes to tap the loosened bark from base to summit for the insects which lie beneath. On the dead branches above, the chattering Starlings sit, or a grey-polled Jackdaw may suddenly descend, to disappear in a hole in one of the upper limbs which he has chosen for his nest. Here, too, one may see the black and white plumes of the Pied Flycatcher, or the bright flickering tail of the Redstart, for in the mouldering recesses of the oak each finds a suitable place for the rearing of its young. Sometimes a mass of discarded pellets at the foot of the tree warns us that a Tawny Owl has taken lodgment in the great cavity of the upper trunk.

But, as we rest in the dense bracken, lately vacated by the deer, the bird which we have come to seek, suddenly appears. It flies swiftly, with even wing-strokes, and alights on a dead branch ;

then it flutters to a hole in the trunk, steadying itself for a second on a piece of dislodged bark, and abruptly vanishes. It is the true Stock-dove, so often confused with other species, especially with its near kinsman of the Rocks. Although it rested for so brief a space of time upon the bough, we had time to note the uniform hue of its grey-blue plumage, and especially to mark the smaller size and the absence of the white neck-ring, which sets it apart from the Wood-pigeon. On the other hand, we observe that it lacked the broad band of white at the base of the tail, the unfailing badge of the Rock-dove.

Here, in the dust of the cavity, the Stock-dove lays its two creamy-white eggs, making little or no nest, but in more open districts it often selects sites far less secure. Thus, in parts of Norfolk and Suffolk, it may be seen to enter a deserted rabbit-burrow, or the eggs may be found in one of the narrow runs beneath dense furze-bushes.

Whether the title Stock-dove was originally applied to this bird, because of its habit of nesting in the trunks or "stocks" of trees—its German name, Hohltaube, or Hole-dove, is plainly so derived—or whether the bestowers of the name conceived the bird to be the "stock" from which all varieties of domestic pigeons originated, is by no means clear. The presumption is that the former is the true explanation, for it is questionable if the wonderful deviations from type seen in domestic pigeons to-day were at all understood before Darwin set forth the facts in his *Variations of Plants and Animals under Domestication*.

Now, there is little doubt that all varieties of tame pigeons, ranging from the tall, upright pouter to the minute, short-faced tumbler, with all the intermediate differences of colour and form, are the result of artificial selection brought to bear upon a race which for thousands of years has been under the dominion of man; and it is further clear that the original stock, the typical pigeon from which all these gradations arose, was a species at any rate closely allied to the Stock- and Rock-doves as we know them to-day.

In addition to the nesting sites named, the Stock-dove frequents wooded inland cliffs, and much confusion has been brought about by its habit of consorting with the true Rock-doves in the crags by the sea-coast.

It is certain that many rock-dwellers on the English sea-line are really Stock-doves, and even in localities where the wild Rock-dove is known to exist, it is not always easy to distinguish it with certainty. In the white cliffs of Bampton and Speeton, near Flamborough, which lie before my window as I write, great numbers of pigeons congregate, nesting together in the caves. In a mixed bag of these, one finds the Stock-doves and Rock-doves in about equal proportions, but with the birds which have all the characteristics of the true Rock-dove, are pigeons with checkered wings, and sometimes mottled with buff and white, plainly showing their farmhouse origin. As in the dove-cotes in the neighbourhood, domesticated Blue Rocks are found which differ in no respect from the wild pigeons of the Shetlands or the Achill

Islands, it is impossible to distinguish between the races which from time immemorial have been denizens of the sea-caves, and those which, wearying of civilization, have merely reverted to their ancestral haunts.

Returning to the woodland birds, the last of the species entitled to consideration here is the beautiful little Turtle-dove. Unlike any of its congeners, it is a summer visitor only to the British Islands, reaching England at about the end of April. It may be distinguished at once by its smaller size and by the delicate hues of its cinnamon-brown and black-barred back and wings. The distribution of the Turtle-dove was at one time largely confined to the more southerly counties, and a line drawn across Yorkshire was held roughly to define its northern limit. Now it appears not only to be becoming more common in districts previously resorted to, but also to be extending its range northward.

I remember a spot on the banks of a densely-wooded little stream in Breconshire, where the Turtle-doves came every morning to drink, and as one fished up-stream, hidden by the overhanging boughs, they might be seen resting on the shingle always at the same place. When alarmed they rose lightly, threading their way through the thickest trees without any relaxation of speed.

Like the Ring-dove, the Turtle-dove forms a slight platform of dry sticks on which to lay her eggs, the nest being frequently placed on the horizontal branch of a fir-tree close to the stem. It may

be noted here that the Collared Turtle-dove, *T. risorius*, the Eastern species so commonly seen in confinement in England, sometimes escapes and reverts to the trees to build. Some years ago I saw the nest of one of these birds in the depths of a wood far removed from any human dwelling. The structure itself was of the frailest kind, consisting of a few stout twigs lined with leaves, and appeared barely sufficient to support the increasing weight of the nestlings. It rested on the horizontal branch of an elm-sapling overgrown with honeysuckle, at about seven or eight feet from the ground.

The Collared Turtle-dove will live for many years in captivity; records of twenty and thirty being not uncommon.

PHEASANTS AND WOODCOCK

BOTH the Pheasant and the Woodcock may be accounted true birds of the woodlands. In some respects the history of the former is unique. To begin with, the Pheasant is the only feathered alien introduced into Great Britain whose acclimatization can be regarded as an unmixed success. Many foreign birds have been brought here from time to time—the American Turkey and the French Red-legged Partridge amongst others—but they have either failed to take root or have become something of a nuisance. The Pheasant alone is a prosperous as well as a highly welcome guest.

Mythological tradition attributes to Jason and his Argonauts the introduction of the bird from the banks of the River Phasis in Colchis. In any case the fable has given rise to both the generic and the specific names of the Pheasant—*Phasianus colchicus*—and it is unquestionably true that his original habitat is the marshy forests on the borders of the Black Sea, into which the waters of the classic Phasis eventually flow.

The exact date of the Pheasant's first appearance on English soil is lost in the mists of antiquity. As in the case of so many other birds, the earliest record is contained in a bill of fare. In A.D. 1059 a certain worthy canon compiled in choice Latin



PHEASANT'S NEST

(Photo by J. Atkinson)

a *menu* for the Feast of St. Michael, and in it we find "thrushes, magpies, geese, partridges and fessants." It is thus clear that the Pheasant was naturalized in England before the Norman Conquest, and as the early English and the Danes showed little interest in such matters, the presumption is that the bird was originally brought here by the Romans, who are also known to have introduced the fallow deer to Great Britain. The superior edible qualities of the bird were clearly recognized even in an age which could stomach Magpies. In A.D. 1290 the market price of a Pheasant ran up to fourpence as against three-half-pence for a Duck or a couple of Woodcock.

So for well-nigh a thousand years the Pheasant of Phasis, who had now gained the title of the Old English Pheasant, lived and thrived upon British soil. But now serious opposition appeared. Towards the close of the eighteenth century a new Chinese Pheasant—*P. torquatus* by name—was introduced.

The males of this species were small but hardy, and were distinguished by a white ring about the neck. In a very brief period these warlike invaders overpowered Colchicus and appropriated his wives, and to-day the white ring, the mark of the conqueror, will be found on the neck of almost every cock Pheasant which decorates the game-dealer's window. This fact is of especial interest to naturalists, for it shows how rapidly one race may supersede another.

One other peculiarity in pheasant-life may be noted. As in the human species we have the New

Woman, who is usually a more or less inferior imitation of a man—so the hen Pheasant sometimes takes upon herself the lordly and resplendent plumage of the cock. She is not a success, however: she is incapable of domesticity,¹ and biologists dismiss her curtly. Her imposing exterior is merely the result of certain internal derangements.

The Woodcock, too, is a bird with certain marked peculiarities in its life's history.

In these latter days, when so many birds are growing scarcer in Great Britain, or have already disappeared, it is satisfactory to find one species which appears to be increasing in numbers as a regular English resident. A few decades ago the nesting of a Woodcock in these islands was an event of sufficient novelty to be deemed worthy of special record. Now, owing it is thought to the increase of plantations—especially of fir covers in the vicinity of cultivated ground—nests are found in every county, and the number of "cock" remaining to breed is undoubtedly growing larger.

Cover, however, is by no means essential to the nesting of the Woodcock. In Shetland, for instance, which is practically treeless, Saxby found it breeding annually on the hillsides of Hermanness, the most northern point of the most northern of the Shetland group. In England the breeding

¹ I make this statement on the high authority of Mr. Tegetmeier. Mr. Murdoch, however, tells me that the infertility of these "hen-cocks" has since been disproved. Experiments carried out at his request by one of the King's gamekeepers proved that they were perfectly fertile.

area now appears to be generally distributed, and nests occur regularly in Sussex and Middlesex, and in Surrey even so near to the metropolis as Streatham. It also breeds extensively in north Lancashire and in Westmorland.

From a sporting point of view the Woodcock is treated entirely as a migrant, and the close time is fixed at March 1st—the date when the foreign birds prepare to leave these islands. In consideration of the large numbers which now breed in Great Britain, this date should properly be changed for an earlier one. The Woodcock is known to be an exceptionally early breeder, and in March the resident birds are already paired, and, in many cases, engaged in nesting. St. John states that he has found eggs as early as March 9th, and there are many instances of young fully-fledged birds occurring in April. By parity of reasoning, therefore, the “cock” should be allowed at least as much law as the Partridge or even as the Grouse.

The nest of the Woodcock is usually a mere depression in the dead fern- or oak-leaves, a few fibres being drawn together to form a rude cup. When a wood or coppice is available, the bird takes advantage of the shelter from rain and wind, but it appears to make little or no attempt at concealment. In the illustration it will be seen that the site chosen is in quite an exposed part of the wood, open to the eye of the passer-by, the adjacent under-wood in which the sitting bird would be completely hidden, being altogether ignored. It is a curious fact in Nature that some birds, and most mammals, exercise the greatest solicitude in securing seclusion

for their family home, whilst others seem to be quite careless in this respect. For instance, the fox, otter, rabbit or rat, hide their young in holes or rocky fastnesses, leaving the hare almost alone to brave the dangers of the open, whilst birds so far apart as the Golden Eagle and the Willow Wren either seek inaccessible crags or artfully conceal their nests in the densest vegetation.

Amongst birds which make no attempt at concealment, and whose nests are readily accessible, the Woodcock, Nightjar, and Curlew may be taken as examples; but in all these cases it may be noted that the plumage of the sitting bird blends so well with its surroundings that identification is by no means easy.

The Woodcock is a close sitter, and it was possible to approach within a few yards of the subject of this picture before she took the alarm. Even at these close quarters, the mottled-browns and greys of her feathers harmonized so completely with the withered herbage around her that she might easily have been overlooked. The point which first arrested attention was the bird's eye. The living eye has a peculiar light which sets it apart from any other object in Nature. The glisten of a dew-drop or the shine of a polished leaf are quite different in quality.

The arrival of the Woodcock on the October migration is an event eagerly looked for by the gunners on certain waste places on our eastern coasts. The birds usually come in early in the morning, performing the journey from Norway or Sweden in about ten or twelve hours. When the



WOODCOCK



WOODCOCK'S NEST

visitation is expected, a keen look-out is kept. The birds are rarely seen approaching from a long distance as in the case of the Fieldfare and the Redwing, but fly at an immense height and suddenly appear as though dropping from the clouds. The Woodcock is practically nocturnal, but it is one of the curious features of migration that many birds which are strictly diurnal also elect to travel by night.

One explanation is that the travellers are not able to support the long fast that a day journey would entail. By leaving at night they are able to feed directly before starting, and also to procure a meal on arrival. If this surmise is true, the Woodcock, being a night-feeder, should travel by day, but *Scalopax* as usual refuses to recognize any theory which might naturally be set up for the right governing of his conduct.

On reaching the British shore he is usually tired, and in the old days when shooting was less strictly regulated, every native in possession of a gun at once set off in his pursuit. Indeed, so important was it to snatch the fleeting opportunity, that not even respect for the Sabbath was allowed to intervene.

As befits a fowl with so strongly-marked a personality, the Woodcock has certain habits which belong to himself alone. Many birds of his tribe are devoted parents. The Snipe and the Ringed Dotterel, for example, are adept in all artful wiles for decoying an unwelcome visitor from their families. But what wader, long of shank and with bill utterly unsuited for such a purpose, has ever

hit upon the bold and original expedient of picking up the young bodily and carrying them clean out of danger? The fact that the Woodcock does so has long been observed, but how has been a puzzle to naturalists for generations. Like the "drumming" of the Snipe, it has been the occasion of great and even bitter controversy. For a long time the confident man held the field—"The Woodcock carries its young in its bill." Gilbert White plainly has his "doots." Then comes the second confident man—"The Woodcock carries its young in its claws." Again there are "doots."

Nor is the burning question finally settled. Scientific opinion, however, leans to the belief that the Woodcock carries its young neither in its claws nor its bill, but that the nestling is pressed against the breast of the parent, and the long, slender legs are brought up tightly by way of support.



TYPICAL NESTING SITE OF THE WOODCOCK

SNIFE

PERHAPS no truer citizen of the world exists than the Common Snipe. In Greenland or the Canaries, in Siberia or Japan, the familiar "scape-scape" may be heard as the orange and brown-barred form springs from reed-bed or water-course, and at once becomes a mere speck in the distant sky.

Seeing that the Snipe lives in all climates and amidst the utmost variety of scene, it is perhaps difficult to speak of its "haunt," yet I think that for most naturalists or sportsmen the word "snipe" will bring to the mind's eye a single picture which is felt instinctively to be that of the bird's true home and habitat.

On every hand the grey mountains rise, and the little road winds through them like a tape thrown loosely down on the heather. There is a reedy lake away in the hills, and from this a slowly running stream takes its course through the dead flat of the valley. At one point the valley is wide as the lake itself, now it narrows where the hills draw closer together and becomes a valley of reeds; a green, rush-grown flat dotted all over with white cotton flags, and with "splashes" here and there which catch the sun.

This bog-land may be said to be the Snipe's true home. Whether the British-born Snipe migrates

from the land of his birth is a difficult question to answer. It is certain that a few pairs are always to be found here summer and winter, and they were probably bred on the lower heathery ground which slopes to the bog. So it may be that the man who would learn something of the life-history of the Common Snipe can find no better point of observation than this remote corner of the county of Kerry.

There are three true British Snipe only, for the Red-breasted Snipe, although classed as a British bird, is a rare American straggler, and Sabine's Snipe is now known to be a mere melanic variety of the common species. These three are known as the Great, the Common, and the Jack, or, in old fowlers' phrases, the double, the full, and the half snipe, these terms having reference to the relative sizes of the birds. One only, the Common, nests in the British Isles. The Great Snipe breeds in Norway and Sweden, and in other parts of the Continent, and is a comparatively rare visitant to Great Britain. The Jack, on the other hand, comes here in comparatively large numbers on migration, but until recent years its nest and eggs had never been discovered. They were first found by Mr. J. Wolley in a marsh in Lapland, and subsequently Messrs. Seebohm and Harvie-Brown came upon the nests in the delta of the Petchora river in Siberia.

The nest of the Common Snipe, if the few bits of dried grass scraped together in a hollow can be called a nest, is not easy to find. Perhaps in one sense it may be said never to be found at all. The secret of its hiding-place is usually given away, and given away by the very skill and care which the bird



SNIPE ON NEST

uses in order to prevent its discovery. If, at the first footfall of the intruder, the Snipe sprang as though casually, from her eggs, and went straight away: better still, if she remained perfectly quiescent in the sheltering heath until the danger had gone by, all would be well. But she waits until the foe is upon her and then runs from the nest with trailing wings or flies a few yards only to drop struggling to the earth as though mortally wounded. It is a marvellous piece of deception, but, alas, to the prying bird-watcher, it tells the whole story—

“Methinks the lady doth protest too much”—

and straightway he examines every nook and recess in the heather until the three or four sharply-pointed, brown mottled eggs, unduly large in relation to the size of the bird, rest before his eyes.

The young, curious little balls of fluff, are able to run almost as soon as hatched, and they hide themselves in the heather until their wings are grown. It is chiefly during the period of incubation that the parent Snipe develops the singular habit from which its many local names—heather-bleater, moor-lamb, air-goat, and so on—are derived, and which has given rise to grave disputes amongst naturalists. On a still evening in early summer one may hear, high in the air, a vibrant “humming” or “bleating” sound, and a flying Snipe is seen suddenly to turn and to dash himself down almost perpendicularly for many yards, and it is as he descends that the sound is emitted. For long it was believed to be a cry, but as far back as 1858 a Swedish ornithologist wrote an elaborate treatise to

prove that it was produced by the vibration of the stiff webs of the outer tail-feathers. This theory, in its turn, was partly discredited, and, as Mr. J. E. Harting and others have now shown, the sound proceeds mainly from the action of the wings.

Another striking peculiarity of the Snipe family, which, however, they share to some extent with the Woodcock and others, is the bill. This is a delicate piece of mechanism, the nerves reaching to the extreme tip. By no instrument less sensitive could these birds, feeding often by night, find their prey hidden in the mud of the swampy reed-beds. A Jack Snipe which I kept alive for some time was provided with a shallow leaden tank filled to the depth of several inches with soft mud. Into this a quantity of small worms were placed daily, which soon wriggled out of sight, and in the morning the surface of the mud was completely perforated with small holes, and every worm extracted. As it became a somewhat serious business to provide a fresh supply of worms daily—the voracity of my small guest was something extraordinary—I endeavoured to supplement his diet with narrow, worm-like shreds of raw beef, also hidden in the mud. But in no case did the Snipe's discriminating bill allow him to be deceived. In the morning the beef was still buried in the mud and the worms alone taken.

To return to the ideal snipe-ground amid the Kerry hills. All through the summer and early autumn months, comparatively few birds may be flushed by the trout-fisher as he returns from the lake by the side of the stream. But one day, in

late October, a sudden change comes. From almost every bunch of reeds, a Snipe springs, and in one little patch of bog-land, barely half an acre in extent, they may be counted by dozens. As the Snipe spring merrily from the rushes, one bird rises which is plainly seen to be smaller than the rest. His flight, too, is different, and he utters no quick "scape-scape" of surprise at being disturbed. Indeed, he rises quite silently, and flies lightly and rather aimlessly for a little distance, when he drops suddenly into the reeds again. He is a Jack, who probably first saw the light in some sheltered valley in Lapland. He is far less easily alarmed than his larger congener, and as one walks through the reeds, he will often rise and alight again many times in succession.

BIRDS OF THE FIELD

A NARROW footpath runs by the side of the hedge which is already white with may-blossom. To the left of the path the mowing-grass is growing high, and in many places the taller stems, weighted by their burden of seed, bend over the little track which is lost for a moment in a tunnel of green.

Like water hollowed by the wind, the grass grows sparsely in some places, where the uplifted head of a Partridge may be seen; in others, the waves of green rise higher, tinted by the red plumes of the sorrel and by the yellow of innumerable buttercups, and here a bird is lost as a man might be in a wood. The tangle is so dense that the eye soon wearies of the attempt to distinguish even a few of the infinite varieties of blade and stem. Over the fragrant surface the butterflies flit. A dragon-fly, plated in sapphire mail, comes, with wavering flight, from the little pool by the oak-trees and rests motionless on his filmy rainbow wings. For a little time he waits, then he drifts swiftly away as though blown by some secret wind.

In the cool recesses of the grass, a myriad smaller insects creep. Sometimes a lady-bird ascends a tall, smooth stem as a sailor might climb a mast, and surveys from the height the waving expanse of green, or a bee, bending the stem by his weight,



SKYLARK AND NEST

descends laboriously as through the branches of a tree, to the red clover which is growing beneath.

Hidden, too, in the deeps is the tiny harvest mouse, least of the British quadrupeds, six of which are required to weigh down one ordinary mouse, and which for so many years evaded the notice of naturalists. Near the top of the stouter stems the nest, like a miniature cricket ball, is woven, and the young are born in a cradle which never ceases to be swayed by every breath of wind.

In the mowing-grass, too, many birds find a refuge and a safe hiding-place for their nests. As one watches, a Skylark may be seen flying swiftly, bearing food in its bill. The surface of the field appears so bare of landmarks that it seems impossible it should find its way with certainty to the spot where the nest lies. But no man can observe wild creatures with any degree of care without being forced to the conclusion that certain of our own senses are either rudimentary or in a far state of degeneracy, when compared with those of many of the lower animals. Man's sense of smell, for example, is so feeble a thing that only the strongest and most nearly placed odours affect it at all. To the otter or the fox, it is a channel through which information the most varied and obscure, reaches the brain. The red deer on the hill becomes perfectly aware of the approach of the stalker when the man himself is still climbing the corrie a mile away. The setter is seen to be intoxicated by the presence of grouse when to the dull human sense no sign of living thing can be detected in the heather spreading for leagues around. These facts suggest

many questions. Animals appear to derive no pleasure from the fragrance of flowers, nor are they repelled by odours offensive to us. Yet this cannot arise from a lack of power to distinguish. It would appear that in their wider experience, these things are not always what they seem. The creatures of the field must be susceptible of a variety of influences from which we are debarred from sheer lack of capacity to recognize them.

So the Lark wings its way across the mowing-grass, and its power of correct observation is so true that every stem rising higher than its fellows provides it with a certain guide-post. Now it checks its flight, hovers for a moment and drops close to the nest where the young ones are eagerly awaiting it. Let the eye be withdrawn for a moment and in the uniformity of the field it is well-nigh impossible to mark again the spot where it disappeared.

The Skylark's manner of singing is well known. It rises from the meadow in easy spirals, singing almost from the ground, and with quivering wings, slowly ascends, the circles growing wider and wider, until it is often literally lost in the upper distance, and the notes, now faint, appear to be shaken down from the void of the sky. In a little while, still singing, the tiny speck falls into sight again and the warbling is continued, until at length the bird abruptly drops into the grass.

The song of the Skylark has been the theme of endless eulogy both in verse and prose, although certain critics regard it as more remarkable for variety and power than for quality of tone. But,

perhaps, it is a thing hardly to be tried by mere technical rule. The circumstances amidst which it is uttered, the passionate rapture with which the bird seems to press higher and higher into radiant space; the suggestion borne in its thrilled frame, that it is inspired from some fount of happiness denied to the common earth-dweller; these might well lead Shelley to exclaim—

“Teach me half the gladness
That thy brain must know,
Such harmonious madness
From my lips would flow

The world should listen then, as I am listening now.”

In this poem, singularly true to the facts, one couplet occurs which may well baffle the curious—

“Like a cloud of fire
The blue deep thou wingest.”

Now, in what respect, it may be asked, can a Lark possibly resemble a cloud of fire?

It is a fact, perhaps, worth noting, that if an ascending Lark be observed through the field-glasses in certain conditions of light, it will be seen to take on exquisite hues of emerald green and blue, and to be surrounded by a nimbus as though of luminous gold.

The nest of the Skylark is formed of dry grass lined with finer fibres, and is usually placed in some slight depression on the ground. The eggs—three to five in number—are of a dull white ground colour, but are freckled so densely with olive-brown that this hue appears to be almost uniform. The

parental instinct of the Lark is so strong that if the old bird be captured with young, she will not only rear her own offspring, but will continue to feed almost any number of alien nestlings which may be introduced to the cage.

Although the Skylark is resident in English fields and corn-lands during the whole year, the flocks are augmented in the autumn by immense flights of immigrants from the Continent. The number of birds reaching these shores is altogether incalculable, the tide of migrants being seen at times to flow steadily onwards throughout the whole day.

The Woodlark differs materially from the Skylark both in appearance and in habits. It is a much shorter bird, is more conspicuously marked on the breast, and bears above the eye a distinguishing light-coloured streak. Although it avoids the deeper woodlands, it constantly perches upon trees, and its song is heard from the topmost boughs as well as when the bird is hovering. Like that of the Skylark the nest is placed upon the ground in the shelter of growing herbage. The eggs—four to five in number—are of a faintly greenish-white ground colour, freckled with olive-brown. The Woodlark is nowhere an abundant species, and its distribution is largely confined to the more southern counties of England.

Of the four other species of Lark included in the British list, the Shorelark, distinguished by its black head and throat, is a bird of extremely rare

occurrence, although of late years an increasing number of examples have been observed especially upon the east coast, and the Crested, Short-toed and White-winged Larks are the merest stragglers.

The Pipits form a small group of birds which occupy a position between the Wagtails and the true Larks. Six species of Pipit are included in the British list. Of these, three, the Water, Tawny and Richard's Pipits, are extremely rare. The Water or Alpine Pipit, sometimes confused with the Rock Pipit, but easily distinguished from it by the light eye-streak and rufous hue of the breast, has occurred in Great Britain on some three or four occasions only. Of the Tawny Pipit, a bird common on the Continent, about twenty occurrences have been noted, and of Richard's Pipit, the largest of the group, about sixty.

The Rock Pipit is a fairly numerous species which resorts exclusively to the rocks and declivities about the sea-coast. It has many traits in common with the Meadow Pipit, and was for a long time confounded with it. It nests more or less regularly along the whole coast-line with the exception of the part which lies between the Humber and the Thames.

Of the two common forms, the Meadow Pipit is the more widely spread; indeed, wherever open spaces extend, in pasture, common or moorland, it is well-nigh ubiquitous. It is usually to be seen flitting from the grass by the wayside to alight on the wall, where its sober hues blend with the grey

stone so completely, that if it were not for its faint notes uttered intermittently it might easily be passed by. If the nest be approached, the parent bird displays no undue anxiety, but remains sitting inconspicuously upon some rock or stone, piping softly until at length the intruder has withdrawn. At these times the notes appear to have some ventriloquial quality, for at one moment they sound close at hand, and at another they reach the ear as though from some far distance.

In some of the more remote parts of Scotland these birds are exceptionally tame, rising at one's feet to alight again on the grass barely a few yards away. I have known birds with their powers of flight fully developed, permit themselves to be caught with a landing-net.

Like the Tree Pipit, this species sings upon the wing, and in the early days of the nesting season may be seen making short excursions into the air and at once descending, singing the while, to the ground or to some rock.

Although the Titlark may occasionally perch on a bush or the bough of a tree, its more usual resting-place is a wall or stone or some grassy tussock on the heath. As, in the moorlands especially, it is the commonest of the insectivorous birds, its nest is constantly selected by the Cuckoo for the foisting of her alien egg. Whether the parent Titlarks resent the intrusion of the Cuckoo to their nest, or whether they merely mistake her for a hawk, cannot be clearly known, but it is certain that they protest against her coming with the utmost vehemence, flying excitedly about her, and filling the air

with reproachful cries. Still, when the egg is laid they make no effort to rid themselves of it, and when it is hatched they permit their own offspring to perish, and devote themselves to the upbringing of their monstrous charge with a fidelity which certainly seems worthy of a better cause.

Although in times gone by the Tree Pipit was constantly confused with the Meadow Pipit, even by observers so scrupulous as Gilbert White, the difference in the haunts and habits, as well as in the appearance, of the two birds is none the less clearly marked. In the first place, the Tree Pipit is larger, is buffier in hue, and the breast spots are larger and fewer in number. The Tree Pipit is less truly a bird of the fields than is the Meadow Pipit, although it, too, shuns the deeper recesses of the woods. Its home, indeed, is usually in the higher trees which stand, isolated or in groups, in meadows or parklands. Here in the early summer it may be seen, perched upon a single dead branch which stands out starkly against the sky above the dark-green foliage of some giant oak. Soon it flies into the air, singing loudly, but instead of ascending skylark-wise in easy spirals, it presses straight upwards as though it would reach the clouds in a single burst. It has none of the glorious persistence of the true sky bird, however, and soon, with rigid wing and downstretched feet, it sinks back, describing a half circle in its descent, and, still singing, it alights again often on the exact spot it so lately left.

It repeats this movement many times, and after a fall of rain several may be observed within a limited

area tossing themselves into the sky and falling back to the tree-tops, showering their notes broadcast the while.

On the ground the Tree Pipit may be seen threading its way deliberately amidst the longer grasses, not often appearing in the open and never to be found running with the swift ease of the Titlark or Wagtail on the mud-flats or the exposed margins of brooks. Unlike the Titlark it is a true migrant, usually reaching these islands about the middle of April and departing towards the end of September.

The nest is formed of moss, fine roots and dry grass, lined with finer grass and a few hairs. It is usually placed on a hedgebank or amidst long grass in the meadow near woods or plantations; often when the trees are open, it is found in the herbage of the wood itself. The eggs are four to six in number and are subject to the greatest variation in colouring, three to four quite distinct types being met with. The commonest form is greyish-white, deeply suffused and mottled with rich reddish-brown. An occasional variety is of a dull uniform pink, showing no markings.

The Whinchat and the Yellow Wagtail are both essentially birds of the fields. The Whinchat resembles the Stonechat in shape and characteristic movements, but is less striking in plumage. The glossy blackness of the head and the rich, bay-coloured breast, which in the distance gives the latter something of the appearance of the Bullfinch, is here replaced by dimmer and browner hues, although still somewhat of the same character. The



TREE PIPIT ENTERING NEST

Whinchat is a true summer visitor, arriving in England in April and leaving in September. Although, as its name implies, it may often be found on heaths and commons where whins flourish, its more constant resort is the rich meadow-lands, and its occasional title Grasschat is certainly a more appropriate name.

It rears its young in the deeps of the mowing-grass, often alighting on the topmost spray of the creamy flowered angelica, whose hollow stem rises far above the denser herbage, and here, as summer advances (if the brood escapes the devastating machine which sweeps aside their sanctuary in level swathes), the young may be all seen, accompanying the hay-makers and uttering their loud, repeated note—"utack-utack"—as they perch on some prominent coign of vantage.

The Whinchat's habit of selecting the very highest point of a possible resting-place is strongly marked. If a tall branch be erected in any part of the hay-field and the Whinchats be gently driven in the direction, they will be seen to change their line of flight and to make for it from quite a considerable distance. This practice probably arises from the fact that they spend so much of their lives in the uncut hay-fields, and as they flit over the surface, they become aware that the lower grasses afford an insecure foothold; thus they come instinctively to select the firmer sprays of the taller growing stems, which not only provide a strong perch, but also prevent them from being hidden.

Here it may be noted that if a long stick be placed at a convenient angle against a hedge and a Robin

be similarly driven, it will almost invariably alight upon it to the neglect of many convenient boughs growing from the hedge itself.

The Yellow Wagtail differs from all other members of its family. It is a summer visitor only, and in many of its ways it bears a greater resemblance to the Pipits than to any of the Wagtail group. Like the Meadow Pipit it loves the open fields, having no special affinity for water on the one hand, and rarely drawing near to human habitations on the other. In shape and carriage it lacks the delicate grace of its kin, its tail being shorter and its general appearance more Pipit-like. Nevertheless in full breeding plumage the adult male, with its canary-coloured breast, is a handsome and conspicuous bird.

In the early summer it may be seen hovering over the young corn, and when the nestlings are being fed, it usually calls attention to their existence by flitting from point to point, often alighting on the topmost spray of hedge or bush, uttering the while its faint protesting notes. Like others of its race, the Yellow Wagtail is a most industrious flycatcher, and half-a-dozen or more may be seen at times in the level pasture following the slow movements of the feeding cattle, running in and out between the animals' legs, and often darting into the air to snap the insects which gather in swarms around.

The nest is formed of dry grass and moss, lined with hair, and more rarely with fine roots, and is usually placed in the mowing-grass or amidst the young corn.



COCK WHINCHAT



WHINCHAT ON NEST

Of the ten species of Bunting, two only, the Common or Corn Bunting and the Yellow-hammer, are familiar English field birds.

The Reed Bunting is a denizen of the marshes, and the Ortolan (beloved of the epicure), the Lapland, Rustic, Little and the Black-headed Buntings are all of the rarest occurrence. The Cirl Bunting, too, is an uncommon species in England except in the more southern counties, and even here it is by no means numerous. It may be distinguished by the black and lemon streaked head, and it differs from the Yellow-hammer in the fact that the male resorts to the tops of high trees in order to sing. The Snow Bunting—a beautiful variety with back and wings mottled with chestnut and black, and with head and breast of the purest white—is more abundant, visiting these shores in winter, and occasionally, although rarely, breeding in Scotland. When a flock is seen hovering or alighting against a dark background, the black and white of the plumage gives them a singularly picturesque appearance, and one can well understand how they have come to acquire the name of Snowflake.

The Yellow-hammer is by far the most abundant of the Bunting race. Wander where one will in English fields and lanes, one is almost certain to catch a glimpse of its familiar form. It seems to court rather than to evade observation. See it as it perches on some overhanging branch of the hedge, on the summit of a gate-post, or on the handle of a plough, its crest slightly raised and its yellow plumage glancing in the sun as it reiterates

its small song, the last notes long drawn out; see it later in the year feeding with the Chaffinches on the dark fallow, or in the winter, wrangling with the Sparrows in the stackyard, and one comes to realize how closely bound up with every form of British agriculture this little bird has become.

In the lower recesses of the hedgerow, often nearly upon the ground, the nest, made of fine roots and neatly lined with hair, is placed. The hairs are mostly long and are cunningly wound round and round, forming a smooth cup. In order to secure these the Yellow-hammer again falls back upon his friend the farmer. Well the bird knows every shed and enclosure where the horses and cattle shelter, and every post and tree-trunk against which they rub. In the rugged bark wisps of hair may be caught, and the Yellow-hammer returns to the spot again and again, bearing them away, a strand at a time. On this bed of toilfully-collected material the curious eggs are laid: of purplish-white covered with finely drawn irregular black lines, which have the appearance of cryptic characters inscribed upon the shell.

Not unfrequently about the corn-lands or in the mowing-grass a heavy bird, not unlike an overgrown sparrow, may be noted. As it crosses the field it displays nothing of the Yellow-hammer's ease and buoyancy in flight; on the contrary, it moves in a straight line, with hanging legs and with wings which appear with difficulty to support its weight. It alights with a harsh tittering cry upon a stem of angelica which stands clear of the



COCK YELLOW-HAMMER FEEDING YOUNG

long grass, and which bends beneath it; and here it remains to utter its monotonous droning song.

The Corn Bunting is the largest of the group. It is most numerous in the southern counties of England, but it is nowhere a very common bird. It usually builds upon the ground, and the four to six eggs are of a purplish-white, streaked or spotted with black or brown.

The Quail and the Common and Red-legged Partridges are also true field birds. The first is mainly a summer visitor, although many occurrences have been noted in winter, and the last is resident since its introduction to this country about a century ago.

The Common Partridge is now so constantly under the guardianship of man that, like the Pheasant, it can hardly be regarded as other than a semi-domesticated species. Even before it is hatched its welfare is carefully considered, and there can be no doubt that under the restrictions of civilization its original habits are largely modified.

But although many birds—the Skylark, Meadow Pipit, Whinchat, Partridge and others—find a nesting place in the long grass, they only use it when occasion serves, and will often select a site elsewhere on bank or heath, or about the whins of the common. One alone is always true to the growing crops, seeking the old fields directly it reaches our shores in late April, rearing its young in their green shade, rarely leaving them even for a moment unless driven thence by the harvesters, or until the

migratory instinct bids it prepare to retrace its flight.

As the Dipper is the bird of the stream and the Red Grouse of the heather, so the Corncrake is the typical bird of the grass.

All its movements are secret. It appears to come in the night, how, one can hardly tell, for a Corncrake on migration is a sight witnessed by few. All that one knows is that the fields, after the long silence of winter, suddenly become vocal. Throughout the day and often far into the night the monotonous "craik-craik, craik-craik" comes, so persistent and unemotional that it would seem to proceed from some piece of mechanism rather than from a bird. If one traces the sound to its source, there is still no sign of any living thing, no movement of rising wings, nor even a rustle in the grass. For a while all is silent; then the "craik-craik" comes again, faintly at first, a little way to the left or right. To follow it is useless; one might as well pursue a disembodied voice.

Yet in certain favourable circumstances the Corncrake may be seen in his chosen haunt, and something of his ways may be noted. Where the grass grows sparsely in the meadow close to the little footpath, a dark form moving amidst the stems may sometimes be made out. It appears to be feeding, when suddenly the head is uplifted and the dull "craik-craik" is uttered; instantly it stoops, picks up several seeds from the ground, between the bars as it were, and crais again with what seems to be the briefest intermission. There is a strange contrast between the quick, alert movements of the bird and



PARTRIDGE ON NEST

the hoarse, level tones which, from a distance, fall upon the ear in what would seem to be almost an unbroken sequence.

Sometimes, on the instant the cry is completed, the Corncrake darts with depressed head through the herbage, and the notes next come, without any manifest break in their continuity, from an entirely different part of the field. The amazing celerity of the bird's movement accounts in some measure for the belief that it possesses ventriloquial power, but at the same time, even when it is quiescent, the cry seems to proceed from different places, the locality being determined by the direction in which the head happens to be turned.

The Corncrake appears to distrust its own powers of flight, and rarely takes to the wing except when driven from its cover.¹ Even then it moves heavily, with hanging legs, and soon falls again into the grass; on such occasions it will, at times, run into the wire rabbit-netting which protects the wood, and permit itself to be taken by hand.

There is no doubt but that the apparently defective wing-power of this species, together with the fact that it has been repeatedly found, in the depth of winter, in a semi-comatose state, hidden in loose stone walls and in rabbit-burrows, gave colour to the belief that, in common with many other birds, its habit was to hibernate.

It is now, however, well known that the Corncrake is a regular migrant, and that it is capable of

¹ There are many records, however, of the Corncrake taking its slow flight from field to field, and even of uttering its characteristic cry when upon the wing.

extended flight is proved by the fact that it not unfrequently rests upon ships a hundred miles or more from the nearest land.

The nest of the Corncrake is formed of dry grass, and the eggs, seven to ten in number, are of a brownish-white spotted and blotched with red and grey. When hatched, the young are covered with black down.

Three other species of Crake—the Spotted, Little and Baillon's Crake—occur at times in England. Of these the first is the least uncommon, but the appearance of all is rare and irregular.



CORNCRAKE



CORNCRAKE'S NEST WITH EGGS AND YOUNG

BIRDS OF THE HEATH AND COMMON

STANDING on this summit the breezy downs lie at our feet. There is nothing to intercept the eye until it reaches the misty line which marks the distant sea. The ground here from time immemorial has evaded cultivation, and has been given over to the pasturage of innumerable sheep which crop the herbage to lawn-like smoothness in the gentle slopes between the gorse- and whin-bushes. Indeed, the whins and gorse spread everywhere, forming dark-green thickets in the winter for the rabbits to hide in, yet never failing, even in the darkest days, to yield a few yellow blossoms in the sheltered recesses. To-day the whole hillside is bright with the fresh bloom, and the long banks and islands of green and gold rest upon the landscape as it falls in rounded outlines to the edge of the low cliffs.

On the right, a ravine extends far into the land, and in its depths one can catch glimpses of the brown stream amidst the tangle of low trees and overhanging brambles. Here the Woodcock and the Short-eared Owls come in the autumn to rest awhile after crossing the North Sea, and on occasions, every stunted bush and wooded brake is alive with the migrant Golden-crests. But these are merely stray visitors, dependent upon the seasons and often deterred by contrary winds.

Some of the true denizens of these waste places are, however, never far absent. The Grey Linnet is the most constant of any. Although in winter many join the flocks of wandering finches which travel far to feed on the stubbles, and even, in severe weather, about the farmsteads, it is rarely indeed that we cross the gorselands without a sight of the white-lined wings, or at least without hearing the wild call-notes as the birds flit from one whin-bush to another. Now, when the gorse is at its best numbers may be seen, and the song, clear and sweet, and altogether unwarbler-like in character, rings out from the higher sprays on every side.

“I wad na gie the Lintie’s sang,
Sae merry o’er the broomy lea,
For a’ the notes that ever rang
Fra a’ the harps o’ minstrelsy.

And certain is it that, backed by the distant murmur of the sea, and accompanied by the chirping of grasshoppers in the warm, dry grass, no other voice so truly expresses the spirit of these wide open spaces of cropped green turf and yellowing whin-bushes as that of the Grey Linnet.

The Linnet is not a very early breeder, and May has sometimes already advanced before the eggs are laid. The nest is in the densest part of the gorse-bushes and is often difficult to approach, for the prickly spines are sharp as needles, but its position may be approximately inferred from the fact that the cock bird usually elects to sing on an upper bough in its near neighbourhood.

In captivity the Linnet is a sombre-hued bird, for the brighter colours largely disappear on



GREY LINNET AND YOUNG



LESSER REDPOLL ENTERING NEST

moulting, but when, in the open, the deep chestnut-brown of its wings, and the rich carmine on head and breast are seen, contrasted with the green and yellow of the gorse-spray upon which it perches, it becomes at once clear that the adult male in full spring attire almost equals the gayest-hued finches in plumage even as it excels them in song.

The changes of the tints on the cock Linnet's breast are not easily followed. In my belief the full carmine hue is not attained until the bird is nesting in its second season, for males of a uniform brown, probably hatched in the preceding spring, are to be observed building in company with the red-breasted forms. After attaining the full rosy dyes it would appear that their brightness fades as the birds grow older, merging first into orange and at length into a coppery yellow. Transitions of this character are certainly to be seen in caged birds, the "copper" Linnets being thought to be the best songsters, and although the changes are doubtless accelerated by captivity, the process in all likelihood exists in a modified form in Nature, and may be held to account for the "lemon-," "saffron-" or "sulphur-breasted" Linnets which are occasionally caught.

When the young are hatched, the parents collect quantities of seeds which they disgorge upon the edge of the nest, and the husks are thus softened before they are offered to the nestlings.

Another familiar bird of the open spaces is the Lesser Redpoll, the smallest of the British finches.

As in the case of the Grey Linnet, the cock Redpoll has a rosy-tinted breast, and the birds have many habits in common, but the difference between the two species is none the less clearly marked. In addition to their smaller size, Redpolls of both sexes have a red cap, and may be distinguished at once by the flecked brown of the back and wings, the lighter under-surfaces and the black throats.

In its choice of a nesting site the Redpoll does not confine itself to the commons, although its nest is occasionally found in the whins. It constantly selects hawthorns, alders and hazels, especially those which overhang streams, and the snug little feather-lined nest is generally placed nearly at the extremity of the bough. These gentle, confiding little birds are erratic in their distribution in England. As a breeding species they are never very abundant in any one locality, and the vast flocks which are seen on the heaths and commons in the autumn are doubtlessly drawn from very wide areas. Redpolls are especially fond of the tansy, and where these tall-growing yellow flowers abound, as on the banks of railway-cuttings or the slopes of disused quarries, many hundreds may be seen together flitting about the herbage or hanging from the stems.

At this season no bird falls a victim to the bird-catcher more readily than the "chivy," as the bird is called in Yorkshire from the resemblance of the sound of the word to its call-note. Sometimes the great clap-nets are employed as for the Grey Linnets, when fifty to a hundred may be taken at

a single "draw," but the commoner manner is by means of "liming."

At some little distance from the feeding-ground where small parties are constantly crossing, a branch or small bush is erected on a wall or other conspicuous spot. To every spray, short cleft pegs, each with a hole bored at the upper end, are affixed. The practised catcher then takes a quantity of bird-lime between thumb and finger of the left hand, and with a bundle of stiff rushes under his arm he, with his right hand, draws each rapidly through the lime and inserts it in the hole in the peg. Then the call-birds in their tiny cages are withdrawn from the knotted handkerchief, and the "set" is complete. For a little while the decoys appear languid and chirp only at intervals, but soon faint notes are heard in the distance, and dark, undulating specks are seen in the sky. The "calls" at once respond; their cries becoming louder and filled with entreaty as the wild birds draw nearer. At length the entire party droops down, often from a great height, and alights upon the bush. Some of their number fall instantly, the limed twigs being at once detached from the pegs directly the wings touch them, but others, having chanced upon a more open space, rest quietly. If they turn to right or left, however, some part of their plumage becomes attached, and they too disappear from the bough. Should they evade the clinging rush and flit again into the air, the efforts of the "calls" are redoubled, and after hovering awhile, they return to the fatal boughs and soon join their comrades on the ground.

It constantly happens that from a considerable flock no single bird escapes.

A second species of Redpoll, the Mealy, is also included in the British list. This is a northern form visiting this country in winter only, and is larger and lighter in colour than the more familiar bird.

The Brambling, too, is a migrant from the north. In summer it may constantly be seen in Norway, its jet-black head and chestnut breast conspicuous as it flits about the mountain-ashes which surround the little farmsteads. As autumn draws near, it joins the Fieldfares and the Redwings to cross the North Sea, and large flocks annually visit the heaths and commons as well as the more remote woodlands.

Here, too, comes the Twite or Mountain Linnet, at once to be distinguished from the Grey Linnet by its longer and slenderer form, more uniformly brown plumage, and light-yellow bill. It usually appears on the east coast in autumn only, and its visits are more or less erratic, but on the moorlands to the north it breeds annually, and its nest may be looked for on rocky ledges amidst the deep heather. Like the Redpoll it is easily decoyed, and shows little of the Grey Linnet's wariness in evading the snares of the bird-catcher.

Where the stream through the ravine joins the sea the banks fall away, and upon the wide declivities here, as well as upon the slopes and hollows of the cliffs themselves, a wilderness of



BRAMBLINGS

bent-grass grows, interspersed with clusters of rank thistles, coltsfoot and yellow-flowered tansy. To this No-man's-land, many birds come. Here one may see precisely as Tennyson did—

“the thistle shake
When two grey linnets wrangle for the seed.”

And here, too, on the smoother stretches may often be noted the white, flickering tail of the Wheatear, or the dark head of the Stonechat as it flits amidst the bents.

But there is one visitor—growing rarer, alas—which seems to be especially the bird of the thistles. Sometimes on the tangled slopes one catches the gleam of a yellow wing—

“A fairy fan of golden spokes it seems ;”

and soon a party of Goldfinches may be made out as they hang and flutter about the purple tufts. Now a mimic conflict arises as two birds, with open menacing bills, essay to rest upon a single plume. Now one drops into the grass to follow a fallen seed, or flies to a low rock, where the crimson-red of head and throat banded by pure white, and the harmony of brown, black and gold of the body-plumage, stand in clear contrast against the dull grey hues of the stone. For a little while only they remain, tearing the down of the thistles away in white streaks; then, filling the air with faint, sweet call-notes, and with quick beating of gold-lined wings, they disappear over the distant angle of the cliff.

Although the Goldfinch is becoming less numer-

ous season by season, in many neighbourhoods at any rate, its beautiful little nest, built in fruit-tree or evergreen, is still to be found in most English counties. On the East Yorkshire coast, flocks amounting to hundreds still occur in November and even later, the birds resting for a few days in the wooded ravines and then disappearing.

About the alders and hazels which fringe the stream, certain rarer visitors come at times in the winter. Their appearance in little groups, their constant activity and habit of hanging head-downwards might lead one at first to believe them to be Titmice. But the sound of their distinctive call-note, and a glimpse of their green- and black-barred plumage soon make their identity clear. Bred in the great fir woods in the extreme north of Scotland, these colonies of Siskins would seem to travel far afield. When one sees them in the ravine they appear ever to be upon a journey, traversing the tops of the trees, high and low alike, and never remaining long in the same locality.

The nest of the Siskin is usually placed in high trees near the extremity of the bough. The eggs are of a bluish-white spotted with red, and are hardly to be distinguished from those of the Goldfinch.

The Wheatear is the earliest of the summer migrants to reach the shores of England. Often on a wintry March morning, even before the first Sand-martin is seen, drowsily skirting the riverbanks, the Wheatear comes, a visible sign that,



YOUNG TWITES

sleet and snow notwithstanding, the summer is really drawing near. It is no covert-loving bird. On the contrary, it stands out bravely in the open downs, flirting and expanding its conspicuously white and black tail, and uttering a sharp "chack-chack" as it flits from one slight eminence to another. Its affection for wide open spaces is so constant that, like the Skylark, it not only usually refrains from alighting upon branch or spray, but generally avoids the near neighbourhood of trees altogether.

When the Wheatears arrive in their thousands on the southern and eastern coasts, generally in the morning, they pause for a little time for rest and refreshment, then a proportion of the great army at once proceeds northwards, and in a few days every county from Sussex to Caithness has its contingent as the birds hark back to the widely-separate haunts of their forefathers. Nothing, perhaps, in avian history is more interesting than the fidelity with which so many birds pass by long ranges of apparently most happy resting-places, and, guided either by experience or inherited instinct, seek far-distant and barren patches of land which they have come to regard as home. A further matter of interest is suggested by the annual arrival of so many Wheatears on the English coast. It is frequently stated that if rare birds—the Blue-throats, for example—were permitted to settle here unmolested, they would in time become fairly common species. The facts do not warrant this conclusion. It is, of course, possible to stamp out given races—the Great Skuas or the Reed Warblers,

for instance, whose habitat is strictly local—either by constant persecution of the birds themselves, or by the destruction of their haunts. But there is no reason for believing that, however carefully fostered it might be, the Bluethroat would be other than an extremely rare bird. The woods and coppices of the whole country are open to it, affording precisely the kind of hospitality it would seem to need. But of certain types Nature does not appear to provide an adequate supply. Where she does, as in the case of the Wheatears, the power of the species to resist systematic attack is most marked. From time immemorial, Wheatears have been slaughtered wholesale, and they were once treated as a regular source of food-supply. Pennant, writing a century and a half ago, states that about Eastbourne alone, 1840 dozens were snared annually. Yet at no period has the Wheatear ceased to be a common visitor to English heaths and fallows.

Vandalism is a thing properly to be denounced, but its absence will never cause to flourish a species which Nature has dealt out with a niggardly hand.

The nest of the Wheatear is made in rabbit-holes, beneath a rock or wall, and sometimes in the open, sheltered only by a clod of earth. The nesting site is often discovered by the appearance of the birds, which hang about the place, often vanishing into the recess where the eggs are laid, and again emerging to take up a conspicuous position on rock or tussock near at hand. The photograph shows a typical nesting-place.

The bird's habit of creeping into sheltered nooks in the ground when any danger threatens overhead



WHEATEAR

—the passing of a Hawk or even of a cloud—renders it an easy prey to the shepherds. A small oblong is cut in the turf, and the sod is placed, grass downwards across it. Within this chamber horse-hair nooses are set. I have myself seen a Wheatear take refuge beneath a large stone projecting from a wall, and permit itself to be taken by hand.

The Stonechat has certain peculiarities which set it apart from both its near relatives, the Whinchat and the Wheatear. Although in other countries which it frequents, it is usually known as a migrant, it is resident in England throughout the year. Again, though it breeds in every English county, its distribution in each is extremely irregular, as, for example, in Yorkshire, where a few favoured spots only—generally gorse-strewn commons at low elevations—are tenanted, whilst in others which would appear to be equally suitable, the bird is unknown. In Ireland, a country avoided altogether by so many warblers, it is resident and common.

In plumage the head, throat and back are of a blackish hue, merging into reddish-brown and relieved by a band of white on the neck and a conspicuous streak of white on the wings. The breast and under-surfaces are of a rich bay shading into yellowish-white.

The nest is made of coarse grass and a little moss, lined with hair and feathers, and is usually found in the tangled herbage amongst gorse-bushes or in the lower part of the gorse itself. The position of the nest may often be determined by the sight of

the birds, for the male, during the time that the hen is sitting, constantly perches on the topmost twig, from whence, ever and anon, it flies almost perpendicularly into the air for a little way, uttering the while its few musical notes, and returning at once to its post.

The eggs are five to six in number, and are of a greenish-blue streaked with red and brown.

The sight of this little warbler, with its black head and bright rufous breast, appearing when all its fellows have flown to sunnier lands, is a most welcome addition to a wintry scene. On the sea-cliffs about the ravine, when the desolate coast is abandoned by all save a wandering Herring-gull, this little bird may often be seen perched upon some stunted bush, or flitting amidst the snow-wreathed bents on the declivities. At this season it appears to court solitude, a single bird only being usually seen.

Of the great warbler group two species—the Grasshopper and the Dartford—may fitly be described as birds of the heath and common.

In plumage as well as in habit, the Grasshopper Warbler is one of the least conspicuous of birds. Its head, back and wings are of a greenish-brown mottled with a darker brown, the fine spots on the head growing broader as they descend. The tail is rounded and is faintly barred with brown. The chin and under-surfaces are of a buffish-white, the buff hue deepening on the upper breast, which is again slightly flecked with brown.

The nest is usually placed in the dense tangle of



GRASSHOPPER WARBLER



YOUNG GRASSHOPPER WARBLER

vegetation which grows in neglected hedge-bottoms, or in the recesses of whin-coverts. It is formed of coarse grass and moss lined with finer stems, and is hidden so deeply that the bird has to thread its way through the rank herbage, often for several feet, before the site can be reached. The position of the nest can be discovered only by watching the movements of the bird as she approaches or leaves, and in Yarrell we have a description of the difficulties to be encountered. The hen was seen repeatedly to draw near the top of the whin-bush and to descend through its branches to a deep, narrow furrow below, overhung with prickly sprays and grown over with thick coarse grass, matted together year after year, to the height of about two feet. This the observer was obliged to take away piecemeal in order to come upon the nest.

Mr. Metcalfe also relates an incident illustrative of the habits of this bird. Believing a nest to be hidden in a certain field, he was beating the rank herbage with a slender willow wand when a Grasshopper Warbler flew from a tussock. As it rose it seemed to come in contact with the wand and fell to the ground apparently dead. The touch was so slight, however, that it seemed impossible the bird should have been injured, so tearing aside the long grasses, he replaced it on the nest. In a moment or two he saw it furtively raise its head and peer out from the screen, doubtless to see if the intruder had withdrawn.

The eggs of the Grasshopper Warbler are from five to seven in number, and are of a pinkish-white ground colour spotted with reddish-brown.

This warbler is a summer visitor reaching England towards the end of April and departing in September. It occurs throughout the three kingdoms, but irregularly distributed, and is found only in a few suitable localities in each county. On the Continent it is also unequally distributed, being fairly plentiful in some countries and practically unknown in others.

Owing to its extreme reticence, the Grasshopper Warbler is constantly overlooked, and if it were not for its curious note one might live for years in its most favoured haunts without becoming aware of its existence. But as one wanders by the fen or gorse-strewn waste, a small grasshopper-like chirp, incessantly repeated, falls upon the ear; now sounding close at hand, and in a moment growing faint as from a distance. The sound has so much of the quality of an insect's cry that in places where grasshoppers and mole-crickets abound it may easily be passed by unheeded, and even when suspicion is aroused one may look narrowly and long before a glimpse of the bird, furtively moving in the deeps of the thicket, can be obtained.

Gilbert White, writing to Pennant in 1768, describes its movements as follows:—"Had I not been a little acquainted with insects, and know that the grasshopper kind is not yet hatched, I should have hardly believed but that it had been a *Locusta* whispering in the bushes. The country people laugh when you tell them that it is the note of a bird. It is a most artful creature, skulking in the thickest part of the bush, and will sing at a yard distant provided it be concealed. I was

obliged to get a person to go on the other side of the hedge where it haunted, and then it would run creeping like a mouse before us, for a hundred yards together through the bottom of the thorns: yet it would not come into fair sight, but in the morning early, and when undisturbed, it sings on the top of a twig, gaping and shivering with its wings."

White appears to be the first English naturalist to have determined this species; the older writers confusing it with the Wood Wren, and, curiously enough, in some cases with the Tree Pipit, a bird with which it has little in common.

The Dartford Warbler is one of the few of its race which regularly braves the winter in these islands. In England its nest is usually placed in the heart of the densest whin-bushes, but in other countries it is sometimes found in the heather. As a species it is extremely local, being mainly confined to counties south of the Thames.

In appearance the Dartford Warbler has certain marked peculiarities which render it easy to be distinguished even when flying. Its short wings and abnormally long tail, amounting to almost one-half of the bird's entire length (apart from the tail it is one of the smallest British birds), combined with the dusky hues of the upper plumage, at once set it apart from the other warblers. Like the Grasshopper Warbler it is mouse-like in its movements, and when alarmed, it prefers to hide in the nearest thicket rather than to seek escape in flight. This reluctance is so marked, that in common with the

Robin, Hedge-sparrow and the Wren, this bird may be literally hunted down, and at length, driven from shelter to shelter, may be finally caught uninjured. Many years ago Mr. Ellman stated in the *Zoologist* that on three different occasions he had run the Dartford Warbler down. This statement may appear strange when one remembers how easily most birds elude pursuit by simply springing into the air and maintaining for a very few moments, a sustained flight. But in the cases of the other three species named, the birds may be chased along thick treeless hedgerows, until at last, overcome by weariness and fear, they creep into some recess or hole in the bank, and so may be captured. Wren-hunting in this fashion was once a recognized custom in some localities in England on Christmas Day. When no danger threatens, the Dartford Warbler may be seen flitting restlessly from twig to twig on the uppermost sprays of the furze-covert, and in the pairing-time it indulges in singular contortions, singing incessantly the while. The song, which is hurried and harsh, is also uttered, at times, when the bird is on the wing.

BIRDS OF THE MOORLAND

THE little fenceless road winds like a white ribbon across the great stretches of heather. A belt of short grass skirts it on either side, and here, two or three mountain sheep are feeding, whilst others on the lower hillside are browsing in green dells, half hidden by the tall whins and bracken. In the far distance the eye reaches the long, low outlines of the hills. It is questionable if England can show finer examples of Nature's freehand than may be seen in these Yorkshire dales. With the horizon for a canvas, the lines are drawn in firm yet delicate curves, and for unbroken miles stand clear against the sky.

Standing on this slight elevation, the vast moorland extends on every hand, the undulating surfaces of green and purple, marred here and there by blackened tracts where the burner has been at work, but growing freshly green again in the hollows where the young bracken springs amidst the rocks. On the ridges of the nearer hills, the butts can be made out, ranged at equal distances and carefully planned to intercept the flight of the oncoming Grouse.

To the right, on the summit of the slope strewn with great grey boulders, lines of fir trees rise, standing as storm-beaten travellers might with their

backs to the quarter from which the prevailing wind comes, and with foliage stretching out like the flame of a candle suddenly arrested. Here, too, the bents and the whin-bushes all turn from the west, the line of their growth permanently deflected by the blast. Beyond the fir trees the ravine dips, and here the little stream runs its rocky course through the sheltering bracken, resting now and then in dark pools to which the Dipper comes at times from the river in the valley.

As one waits, there is little sign of life—a few butterflies (meadow-browns) flit about the bracken and grassy spaces, dropping into the herbage after each uncertain flight, like dead leaves stirred by the wind, and the crop-crop of the sheep behind us and the murmur of the burn in the distance, are, for the while, the only sounds to be heard. But as one smokes restfully, surveying the whole peaceful scene, certain birds which have been near to us all the while, begin to make their presence known. A Meadow Pipit flits from the grass and alights upon a rock where, hardly to be distinguished from the grey stone on which it rests, it utters its faint intermittent notes. Then a Wren draws near, moving busily from point to point. When it reaches the rough stone wall which guards the fir wood, it pursues its investigations in every cranny, creeping into the interstices and reappearing again, with sudden bending of breast and jerk of tail.

Lower, the ravine widens, and the ground becomes free of heather and bracken. Here, on the grassy expanse, the Green Plovers find a congenial haunt, and many may now be seen running amidst



GREEN PLOVER ON NEST

the rough tussocks or wheeling overhead uttering their wailing cry. It has often been observed that some birds have a peculiarly human quality in their note. I think this applies strongly to the cry of the Green Plover, especially when her eggs are in jeopardy. Certainly the cry seems to embody both an entreaty and a threat. That the bird is aware of the danger which menaces her young and of the best means to avert it, is clear. When she rises from her eggs or the place where her nestlings are concealed, she steals away without a sound. It is only when one draws nearer that she grows excited, flying close to the intruder and protesting bitterly against his presence.

But the Meadow Pipit and the Green Plover are birds of the field, and the Wren is a citizen of the world. Of the true heather-dwellers, the birds which build exclusively in its recesses and which cling to it as the Dipper cleaves to the streams, the Red Grouse is typical.

When one recalls a certain October day, when the beaters with their fluttering flags were abroad, and the hillsides were alive with beating wings, the moor to-day seems strangely deserted. But in the cover of the deeper heather, vast numbers of Grouse are hidden. In the midday heat they rest in seclusion, but as the sun declines, they may be seen in all directions, the dark forms feeding in little groups on the belts of the younger heath, now growing freshly green in marked contrast with the black, charred tracts of last season's burning.

In the early morning, too, just when night

merges into day, the Red Grouse is alert. As one listens in the stillness of the dawn, a faint metallic note, uttered several times in succession, reaches the ear; then there is a long pause, and the sounds are repeated. The call-note of the hen Grouse is rarely heard except at daybreak, and is so slight and monotonous that it may easily pass unnoticed. But it is none the less a challenge, and soon, from the distant slope, comes the masterful reply—"Guer-rr-rr, goback, goback, goback," as the old cock rises into the air and brags down again into the darkened heather. In a moment more in response to the reiterated call, his black form hurtles across the moor as he hastens to rejoin his mate.

The dalesmen learn to imitate the note of the hen Grouse with surprising accuracy, and the bold, reckless approach of the cock renders him an easy prey to the concealed gunner.

As the feeding Grouse move in little groups, they appear in the distance to be mere grey blots on the carpet of green. But the field-glasses bring them nearly to one's side, and one realizes, perhaps for the first time, what a singularly handsome bird the cock Grouse in full breeding plumage, really is.

As one watches, he flies from the heath to the summit of a low grey boulder. Here he stands proudly with the duller hued hens grouped about him, and as he raises his head, the crescentic patch of bright vermilion above the eye stands out clearly; one can see every golden and black bar on his back and breast, and even the delicate ermine-like whiteness of his feet. Seen in his home here on

the boulder, its base hidden by the branching fronds of the bracken, and backed by the miles of glowing heather, the Red Grouse forms a picture not easily to be forgotten.

For the sportsman, the flight of game-birds and wildfowl is a matter of constant note; indeed, it is part of his occupation to be able to distinguish one bird from another at great distances. The naturalist carries such observation still further. Few birds of different genera fly exactly alike. Even in species so nearly allied as the Partridge and the Grouse there is a difference in the beating of the wings which the trained eye will detect at once although the bird may be far away. When the difference in the shape of wing is more marked, discrimination is easier. No one, for example, could mistake the flight of the Green Plover for that of any of its congeners. The rounded appearance of the wing as the Peewit wheels and tumbles over the pointer's head, is a matter of common observation, but perhaps the most striking peculiarity in the flight of this bird is seen when a large flock is observed at a distance. A curious palpitating motion seems to pervade the entire body which has no relation to the line of flight. Compare this with the steady forward movement of a flock of Golden Plover or a homeward-bound party of Rooks, or (so far as my knowledge goes) with that of any great congregation of birds which can be seen in a mass in the sky. An individual peculiarity in the Green Plover's manner of flight will be recognized at once. That birds differ immensely in wing-power goes without saying. The Grouse and others of his tribe may attain great

speed, but these appear to use their wings only to move from place to place. They never gambol in the air; they indulge in no turnings and gyrations from mere love of flying. When they spring from the heather, they can only rise by beating the air with immense rapidity, and they alight heavily, the downward stretched feet striking the ground first, when they run for several yards to exhaust the impetus of their descent. Once fairly in flight, however, they proceed by a series of rapid wing-beats, followed by long gliding movements. When gliding (unlike the swallows and the hawks), they appear to have no power to rise, the line of their flight being horizontal, or, more usually, tending downwards.

Of the four British members of the Grouse family, the Capercaillie, the Ptarmigan and the Black and Red Grouse, the first appears to have become extinct in these islands a century or more ago, and now owes its existence as a British bird to the fact of its reintroduction from Sweden in 1837. It is by far the largest of its race, and differs from its congeners inasmuch as in place of the open moorland or mountain top, it finds a home in the deepest pine forests.

It is satisfactory to learn that, after many failures to re-establish this interesting species in its ancestral haunts in Scotland, it appears now to be firmly settled, its range having extended from Perthshire to Loch Lomond, East Stirlingshire and Fife.

The Ptarmigan—the smallest of the British Grouse—is found in Great Britain only on the summits of the loftiest Scotch mountains, principally in Ross and Sutherland. Here its delicately pencilled grey and white plumage blends so completely with the lichen-covered rocks and mossy boulders amidst which it lives, that it is well-nigh indistinguishable from them even at a few yards' distance.

This species is interesting by reason of its gradual change in colouring as the seasons advance, the new feathers, at every stage, falling into perfect correspondence with the changing hues of the rock and hill, until at length, the grey pencillings merge into pure white in completest harmony with the snow-covered summits.

The Blackcock is the nearest akin to the Red Grouse, but it differs from it in many of its habits. In the first place, in common with the Capercaillie, it is polygamous. In the pairing season the males assemble before daybreak to utter a succession of loud notes, which call the females together. At these gatherings the cocks move to and fro with trailing wings and outspread tails, performing extraordinary antics, and the fiercest battles ensue, each victor at length withdrawing, accompanied by his following of hens.

Again, differing from the Red Grouse, the Blackcock is not strictly a moorland bird. Although cover is not essential to its well-being, it usually resorts to swampy, rush-grown places where

thickets of birch and willow grow freely, its general habitat bearing resemblance to that of its Scandinavian relative, the Willow Grouse.

The Red Grouse, on the other hand, never deserts the heather even for a day, except in circumstances of the severest stress. In unusually hard winters, when the moors are covered with frozen snow, it occasionally wanders abroad, and may even depart so far from its natural habit as to be seen upon the branches of the mountain ash feeding upon the berries; but at the first opportunity it never fails to return to its loved heath. Even when scared from some narrow belt of moor by the advancing beaters, and forced to make a wide detour across the cultivated valley, the driven pack seek no rest until heather be found again, although, as they well know, it lies within the very heart of the danger zone.

The natural history of the Red Grouse is of peculiar interest. It is essentially British, and is indigenous to no other country. The Willow Grouse ranges throughout the entire continents of Europe, Asia and North America, and it is believed that both this species and the Red Grouse have sprung from a common stock. But our bird, isolated for unknown ages in a temperate clime and living amidst the most favourable conditions, has taken on qualities which at once set it apart from the commoner and more widely-spread form. If it has lost the power of turning white in winter with the disappearance of the need of assimilation, it has drawn from the British heather, a range

of virtues which renders it the finest game-bird in the world.

Many attempts have been made to acclimatize the Red Grouse in other countries. Years ago it was introduced to Southern Sweden in districts corresponding in latitude with Aberdeen, and more recently large numbers were set free in the heather-lands of Belgium and Germany. These efforts, we are told, have been attended with some success, but it is still questionable whether the species will ever take root in lands other than those of its own choice. Even within the limits of the British Islands there are many localities which appear altogether suited to its habits, but where, none the less, all attempts at its establishment have failed. The Red Grouse thrives in Lewis, Harris, North and South Uist, and even on the smaller islands of the Hebridean group; in the Orkneys, too, remarkably fine birds are produced. But in the not far distant Shetlands, islands possessing, it would seem, every advantage which the grouse naturally seeks, it is not indigenous, and although the birds, when introduced, appear to nest freely, the broods gradually diminish, and at length finally disappear.

The Red Grouse breeds very early; indeed, in January the great packs appear to break up, and isolated pairs may be seen together. It is said that young birds almost able to fly have been found in March. The nest is generally hidden in the heather, although by no means always in the densest tracts, and is formed of grass and stems of ling, lined with a few feathers. The eggs are deeply suffused and blotched with umber-brown

upon a reddish-white ground, and are from eight to twelve or fifteen in number. The young, delicate little balls of golden fluff, barred with brown, leave the nest directly they escape from the shell, gathering about the feet of the hen as she leads them to the feeding ground, and brooding beneath her wings at night.

Throughout the summer and in the earlier part of autumn these family parties keep together, but towards the end of September they combine with others to form vast packs. When packed, the Grouse become extremely vigilant, rising far beyond the range of the guns, and it is to this habit that the modern system of driving is largely due. It may be noted here that the practice of packing is more commonly adopted by Grouse which exist on the broader and more level tracts of heather: those to be found in Yorkshire, for example. In many other localities—in the west of Scotland particularly—where the moorlands are mountainous and diversified by deep heathery corries and precipitous ascents, the Grouse appear to remain in the original broods throughout the whole of the winter.

Although the Red Grouse is essentially a home-loving bird, and has no trace of the migratory instinct which leads so many of the feathered races to cross the seas, the packs, nevertheless, often make considerable excursions from their native moors to visit those at a distance. Mr. Eagle Clarke states (*Yorkshire Vertebrata*) that towards the end of October in every year, there is a migration of packs of Grouse from the Duke of Cleveland's moors in Upper Teesdale to Alston in



GOLDEN PLOVER ON NEST

Cumberland (a distance of twenty miles), where they remain until the end of the season, and then return to their own county.

The Kettlesing moors, near Harrogate, are also visited annually by packs of migrant Grouse which differ altogether in type from the birds bred in the locality. The strangers, indeed, can be recognized at once, for (as in the case of the Alston birds) the packs appear to consist entirely of hens, and the birds are smaller and of a light golden hue, differing conspicuously from those bred on the vast heather-tracts for many miles around.

As winter draws near the plumage of the Red Grouse becomes very thick and warm, the feathers "doubling"—that is, two plumes are found growing from each quill, the outer being the ordinary coloured feather, and the inner lighter in hue and of a soft, downy texture.

As the eye rests on the rocky slope of the hill below the fir trees, another moorland bird may be made out. It flies swiftly from point to point, alighting with uplifted wings upon some tussock or heathery brae, and its clear, plaintive call-note, "plu-e plu-e," falls sweetly on the ear. The cry of the Golden Plover can never be mistaken, and as it stands on the tussock, the variegated golden yellow of the wings and the deep black of the breast—the mark of the full breeding plumage—may be easily distinguished. This change from the dull winter garb of greyish white to conspicuous black in spring is characteristic of the Grey Plover as well, and applies in a lesser degree to certain of the

females. That this is not always the case is seen from the photograph, wherein the sitting hen is shown to be but slightly spotted on the breast.

In autumn the Golden Plovers which have been bred on the moors congregate in large flocks and descend to the sea-coasts. At this period many migrate, and vast numbers in lines extending for several miles, have been seen passing over Spurn Point on the east coast.

In common with the Golden Plover, the Curlew visits these heathery dales in the nesting season, departing again to the mud-flats and saltings as winter draws near. In the early morning its wild cry may be heard as it rises from some rush-grown morass far out on the moor. Ever the wariest of birds, it flies in wide circles around the intruder, uttering its mournful notes, but rarely permitting itself to approach within gun-shot. Often when fishing the hill-lochs in Sutherland, I have watched it standing upon some distant eminence, its brown barred form and long curved bill silhouetted against the sky; here it would remain for long spaces of time, sometimes wandering a little distance away and bending to pick something from the heather, but always returning to the coign of vantage wherefrom its vigilant eye could follow the disturber of its haunts.

In the ravine behind the fir trees, where the little stream takes its way amidst the boulders and bracken, a dark bird, resembling a blackbird, save for the white crescent upon its breast, may be



CURLEW'S NEST AND EGGS



CURLEW ON NEST

seen springing from the tangled herbage almost at one's feet. It flies for a little way and then alights abruptly on a flat rock, moving restlessly to and fro, uttering its quick alarm note—"tac-tac-tac, tac-tac-tac," many times repeated. As one stoops to examine the recesses, it flies nearer, sometimes within a few feet, still protesting in rapid querulous cries. Moving the bracken aside, we come upon the nest on a low rocky ledge overgrown by heather, the eggs still warm from the contact with the bird's breast.

The Ring Ouzel is a migratory thrush, but, differing from the Fieldfare and Redwing, it visits England only in summer. There appear to be two forms of this species—a darker and a lighter—the darker, of which the British bird is a type, inhabiting the more northerly regions. In its habitat the Ring Ouzel differs from all the other thrushes. In place of orchards, fields and woodlands it frequents wild and uncultivated tracts, especially the moorlands, and here its low piping note may be heard as it rests upon some grey rock or heather-clad brae. The nest is usually placed upon some bank or ledge on the rocks sheltered by tall-growing bracken or heather, or in the recesses of the lower crags. The photograph may be taken as a typical Yorkshire nesting site.

Except on migration the Ring Ouzel is not gregarious, and it is unusual for many to be seen together in one locality. It is not a branch-loving bird, preferring a rock or ling-covered summit for a perching place, rarely, in my experience, ascending to the higher trees. Indeed, a Ring Ouzel

which I kept for some time in an aviary, never appeared to alight upon the boughs at all, choosing mainly a long shelf near the window, to which it invariably returned after its short excursions to the ground.



COCK RING OUZEL FEEDING YOUNG



RING OUZEL ON NEST

BIRDS OF THE RIVER

SEEN from the bridge, the river is fretted with jutting rocks, but there are calmer reaches beyond, and the willow-grown island in mid-stream, where the yellow gleam of primroses may be caught, affords a constant resting-place for the eye.

Below the island the water is fairly deep, but it grows shallower as we ascend, and the quickened tide of the two streams running on either side, gives a succession of likely casts.

Now a Sandpiper passes, flying low, and alights with jerking tail and nodding head, upon a mossy ledge of rock. It runs daintily, often stooping to take some imperceptible fly from the water, and at length flies, piping, to the shingle a few yards away.

It is a slim, snipe-like creature, silvery white beneath, with back and wings delicately marbled in greenish-brown and black. It never appears to rest for more than a moment at a time, running swiftly amidst the shingle, or suddenly making a short excursion over the river, flying with quivering cry close to the water, and usually turning again and alighting at no great distance from its first point of departure.

At the edge of the shingle away from the stream the low bank beneath the willows is covered with

broad-leafed plants and high grass. Sometimes in later May, a Sandpiper flits from this spot quite silently, and instead of seeking a resting-place upon the nearest rock, holds a straight course up-stream and disappears beyond the curve. This is so unlike its usual manner that attention is at once drawn to the place. The nest is not easy to discover, yet, when it is at length seen, one wonders that it should so long have escaped observation. It is barely concealed: a slight structure of dried grass; and it is only when the eye rests steadily upon it that it is seen to differ from the many stray wisps of stream tangle which lie bleaching around.

When the young—tiny balls of mottled grey which match the variegated hues of the shingle to a marvel—are abroad, the demeanour of the parent bird changes. She is seen at once to be piteously concerned for the welfare of her little ones. Not only does she flit anxiously from stone to stone about the place where they are concealed, but she will perch upon railings or on the branches of trees close to the intruder, piping incessantly. If the young are hard pressed, they take readily to the water, where they swim and dive freely long before they can fly. The old birds, also, are expert swimmers and divers. If pursued by a Hawk, it is said that they will drop into the river without hesitation and instantly disappear. In my experience, however, they never use this power except in times of stress.

Above the line of the willows, the river takes its course through a hanging wood, and wading up-



COMMON SANDPIPER ON NEST

stream one finds one's self at length in a tunnel of overarching greenery. Very pleasant it is to wander with an eight-foot rod along this mossy, murmuring thoroughfare—there is no other track through the trees which are massed on the sides of the ravine on either hand—and to escape the sun which is turning the lower reaches into unfishable silver. It is needful to wade deep, for one must take the water, shallows and pools alike, as it comes, and so avoid the need of landing—a disastrous thing to net and fly-cast—and of forcing a passage through the interminable tangle of bough and leaf.

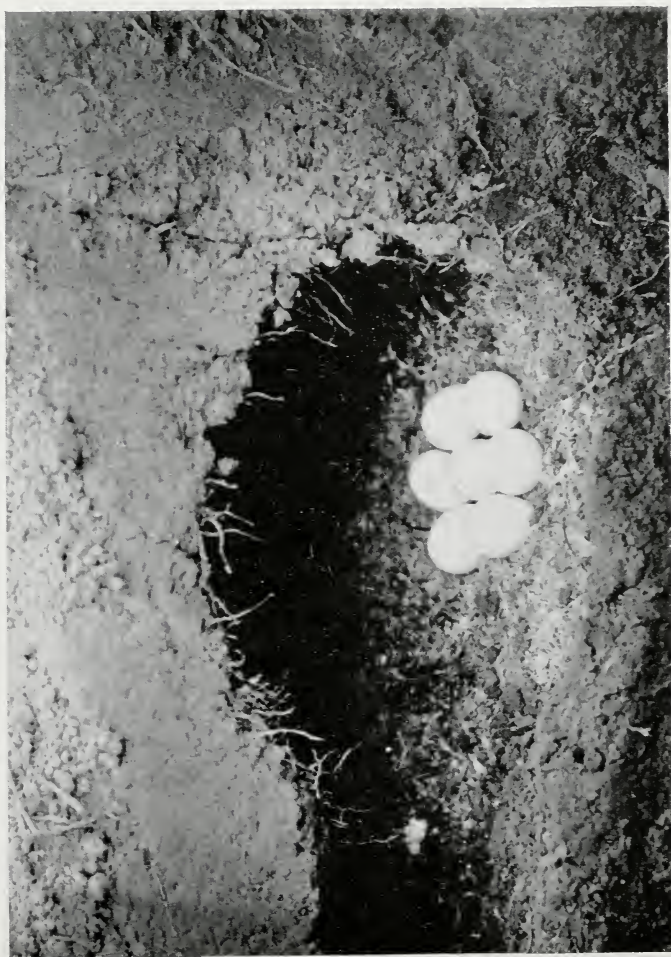
The river is broken here into still pools and restless rippling flats. By the reef of moss-grown rocks, it appears to wait and to gather strength; then it curves and rushes beneath outstretching boughs which touch its current, soon to spread itself out so thinly that even the pebbles break its course, and it seems incapable of hiding any fish greater than a minnow. On the right is a steep bank overhanging a foaming little torrent. At the top of this bank, an ancient oak stands with deep rifts and caverns in its once mighty trunk. The bank has been worn down by the stress of many spates, exposing the roots, which now form a tangled mass projecting over the water. As one waits beneath the opposite bank screened by the leaves, a sudden quick cry comes, and a streak of living blue flashes down the stream. Now the Kingfisher, in its garb of sapphire, emerald and ruddy gold, alights abruptly upon the outstretched roots beneath the oak, pauses for a moment, then turns and disappears within a hole.

This tunnel, usually excavated by the bird itself, slopes slightly upwards and extends into the bank for about two feet. At the upper extremity a small cavity is hollowed, and here, upon a mass of fishes' bones, disgorged by the bird, the round, rosily-white eggs, seven in number, are laid. As in the case of the Sand Martin, the shells are translucent, and when the yolks are extracted, the faintly rosy hue disappears. The *débris* of bones is said at times to be worked by the sitting bird into the form of a cup, and that, by reason of certain secretions and the dampness of the soil, the particles cohere, forming a smooth rounded structure which may be withdrawn from the cavity intact. In most cases, however, I think the bones merely form a loose bed, and are often so thinly distributed that the eggs rest upon the bare soil. When the young are able to fly, they may be seen perched in a line upon some overhanging bough, giving a clamorous welcome to the old birds as they come bearing the food in the shape of small fish or aquatic insects.

The accompanying photographs, which show the Kingfisher during incubation, and the young in different stages of development, were the result of no small amount of ingenuity and patience. The bank above the nest was partly cut away and the old bird, at length, permitted a view of herself to be taken. The displaced portion of the bank was then carefully restored, and subsequently the cavity was exposed again and again as fresh pictures were required. The remarkable feature in this case is that a bird, so wary as the Kingfisher is known to be, did not desert at the first assault upon her home.



KINGFISHER ON NEST



KINGFISHER'S NEST AND EGGS

The Kingfisher, although it invariably feeds about the water, often travels far afield in search of a breeding site. Many instances are given of nests found in the banks of gravel or chalk pits a mile or more from the river which forms its constant haunt.

As the angler rests in the green gloom of the densely overshadowing trees, surrounded by the swirling current, the shyest birds cease to treat him as an alien. Thus the Kingfisher constantly alights on the dead bough which droops over the stream barely a dozen paces away. It remains quite motionless, with head depressed, watching the water. Suddenly it drops like a flash of blue light, sheer into the tide. The movement is so quick that the bird can hardly be said to disappear, for in a moment more, it is seen winging its way to the higher bank with a tiny fish in its bill. If it can be followed it will be seen to strike its prey sharply against some rock or branch, and then, with a dexterous twist in the air, to seize and swallow it headforemost.

Although the Kingfisher is still to be found on most English streams the constant persecution to which it is subject tells seriously upon its numbers. Its habit of darting like an arrow beneath low bridges renders it liable to almost certain destruction, for an invisible net drawn across the open space beneath, will intercept the passage of every bird in the locality. This practice, once common in Yorkshire, has been fortunately put an end to; most of the Kingfisher's haunts being strictly preserved in the interests of the trout, and the presence

of a loafer with nets about the fishing-ground being sternly discouraged by the river-watcher. At the same time Kingfishers are still ruthlessly shot down in the winter, and even in the most favoured districts one or two birds at the most are alone to be met with.

A second member of this race—the Belted Kingfisher—is accounted a British bird. It is a North American species, and its inclusion rests on one or two casual occurrences in Ireland.

The Dipper—Water-ouzel, Water-Colley and Water-crow, as it is variously named—builds its large dome-shaped nest, often drenched with the spray of cascade or waterfall, upon some mossy rock, bank or buttress of bridge, always in closest proximity to the rapid stream which the bird never deserts. Indeed, so great is its affection for the river, that a nest is rarely found which is not overhanging or entirely surrounded with running water. Even if the bird is forcibly driven aside, it makes the briefest detour across the angle of the meadow, returning to the stream which it loves without the least possible delay. The Dipper is with great difficulty led to forsake the nest which it has laboured so hard to build. Even if its eggs be taken time after time, it will still continue to lay.

Throughout Great Britain, wherever trout-streams exist, except in some few localities—the East Riding of York, for example—the Dipper is usually to be found resting on the shingly bank beneath the willows or flitting from stone to stone.



YOUNG KINGFISHERS TWELVE DAYS OLD



YOUNG KINGFISHERS THREE WEEKS OLD

Although as a race it is set far apart from the common Wren, the two are, in many respects, curiously alike. They differ, of course, in size and colouring, but in characteristic movements, mode of flight and even of nest-building, they appear to be animated by a common spirit, and in shape they are almost identical. Let any one watch a Wren as it takes its way along some streamlet—now moving on a rocky ledge, pausing occasionally with jerk of tail and bowing movement of head and breast—now flitting with a little cry to some mossy stone in mid-stream, now pausing contentedly amid the cataracts to utter, even in mid-winter, its small chirping song—and the resemblance between the two birds will be seen at once. The title of Water-wren would be at least more appropriate to the Dipper than that of Water-crow, a bird with which our friend of the riverside has nothing in common.

But in one respect the Dipper differs essentially from the Wren and, indeed, from all other birds. Although it is not web-footed and does not swim upon the surface, it is none the less truly aquatic. In seeking for food, which consists largely of water-beetles and the larvæ of various insects, it has a method which is entirely its own. From some shelving rock or bank it walks gently into the shallow water until at length it is entirely submerged. Now, in favourable circumstances, it may be seen literally flying under water, its wings extended to the full, busily engaged in picking up its minute prey from the weedy nooks and interstices of the pebbles. It travels to no great distance, often pausing at a fruitful feeding spot, where, with down-

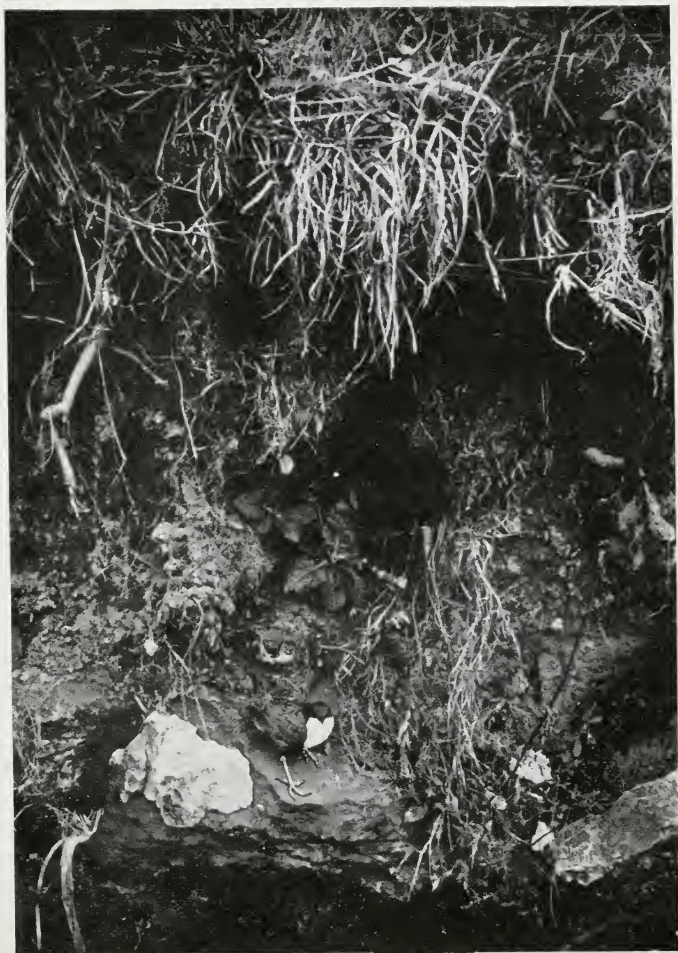
ward pressed head, it holds itself in position by a rapid upward movement of wings and legs. In a few moments more its white breast appears unostentatiously above the surface, when it regains its place on the stone, soon flitting down the river-bed to select a new starting-place.

In its use of the wings beneath the water it follows the habits of the Puffins and Guillemots. The Cormorant, on the other hand, progresses by strong backward sweeps of the webbed feet alone.

The confidence of the Dipper is easily gained. Often when fishing on some secluded reach of a Yorkshire river, it has been my companion for a whole day, sometimes flying far down the stream and then returning to alight on the extreme end of the rocky ledge, or to utter its small song for many minutes together, as it rested on a stone beneath the tangled oak-roots, within easy reach of my rod.

It has been said that the Dipper feeds upon the ova of fish. This is now conclusively proved to be untrue. By waging constant war upon the water-beetles and other insects known to be destructive to the spawning-beds, it is the best guardian a fishery can possess.

The continental range of the Dipper is a somewhat moot point in ornithology. Doubt has been expressed as to whether the form which is distributed more or less irregularly throughout the Continent is always identical with the British race. The suggestion has been put forward that a second



DIPPER

and even a third species should be admitted, this view being based mainly on the fact that, in some localities, Dippers are found lacking the chestnut band on the breast. But this black-breasted form, which also at times occurs in England, is not generally held to constitute a separate species.

Of the five species of Wagtail included in the British list three only may be regarded as familiar. The two rarer birds—the Blue-headed and the White—were for a long time regarded as mere Continental modifications (even if the differences were observed at all) of the Yellow and the Pied respectively. They are now admitted to be of separate species, and the distinctions can easily be recognized on examination. The Blue-headed Wagtail may be known at once by the bluish-grey hue of the head and the white eye-streaks, as compared with the pale-olive head with yellow eye-streaks of the Yellow form, and the White may be distinguished by its ashen-grey back in marked contrast with the blacker plumes of our own Pied variety.

Two of the British Wagtails—the Pied and the Grey—may be properly accounted birds of the river, although the former is by no means exclusively so. Still, one so rarely spends a day on a trout-stream without seeing one or other of these beautiful birds running swiftly amidst the shingle or alighting upon the partly submerged stones, that one comes to regard them as an integral part of the scenery.

The Pied Wagtail is generally known, not only for its sharply-contrasted black and white plumage, but also for the singular grace and daintiness of its movements. It is essentially a bird of open spaces, shunning the remoter woodlands, and is constantly seen about the farmsteads, where it droops down from the roof of the barn, its sweet call-note, "chiz-zic, chiz-zic," chiming with the rise and fall in its flight, to alight upon the cobble-stones, when, with nodding head and swaying tail, it runs cheerily hither and thither, snapping up minute flies almost at one's feet. Sometimes it will spring into the air and overtake its prey on the wing, and wherever water is to be found, the Pied Wagtail is at home. At the pond-side, or by the little stream which crosses the lane below the village, the slender, graceful form appears, tripping daintily on the edge, or wading in the shallower reaches in pursuit of the smaller aquatic insects.

Yarrell states that the Pied Wagtail seldom perches on a tree, but this opinion can hardly be borne out. Although it may rarely be seen amidst the denser foliage, a dead bough on oak or ash is a constant resting-place, and in autumn, when numbers gather together, they may be found roosting night by night in the taller willows. I remember a small island overgrown with ash-trees in the centre of a pond which was a regular resort for the Wagtails, and hither in the late afternoon, they would come flying in from all directions to sleep amidst the upper branches.

The Wagtails, with the exception of the Meadow Pipits, are the smallest birds that walk, and the



PIED WAGTAIL FEEDING YOUNG

swiftness of their movements is at once noticeable. In their more extended flights, too, their mode of progression is different and more airily light than that of most of the smaller birds. It consists of a series of long undulations, the bird rising into the air and drooping again with closed wings in a succession of delicate curves.

The Wagtails are strictly insectivorous, and may be classed with the least harmful as well as the most beautiful of British birds.

Although the Pied Wagtail is resident in the three kingdoms, considerable seasonal movements occur within the British Isles, and numbers cross the English Channel in autumn, returning in spring. On the Continent the British type appears to be largely confined to countries in the extreme west, its place in other latitudes being taken by a greyer form.

The Grey Wagtail is so strikingly handsome a bird that one can only wonder how its sober and inadequate title came to be applied to it. Indeed, with the exception of the Kingfisher, the plumage of few British birds is so varied and beautiful.

This species is not often seen about the village or farmstead, and might appropriately be named the Water Wagtail, a term usually applied to the Pied, for it is certainly the most consistently aquatic of its race. Indeed, it seems to avoid all prosaic surroundings, and would appear to select the most romantic glades by the river, where its slight, graceful form and delicate yellow and ashen-grey plumage, con-

trasted with mossy rocks and gliding streams, may be seen to the truest advantage.

I remember well a loch amidst the Sutherland hills, where the waters suddenly descended from an immense height into a dark ravine. In the deeps below, rising sheer from the foam, was a slender pinnacle of rock, and upon its narrow summit, vegetation had taken a precarious hold to form a tiny green oasis in a wilderness of black frowning cliff and leaping spray. As one gazed from the heathery ledges above, a Grey Wagtail, a mere streak of saffron-yellow, flitted across the abyss, and rising, alighted upon the little spot of green. There it remained, with gently fanning tail, within a few feet of the cataract, its small voice drowned in the ceaseless roar, the single living thing, beautiful and fearless, in the whole scene of desolation.



SWALLOW ON NEST

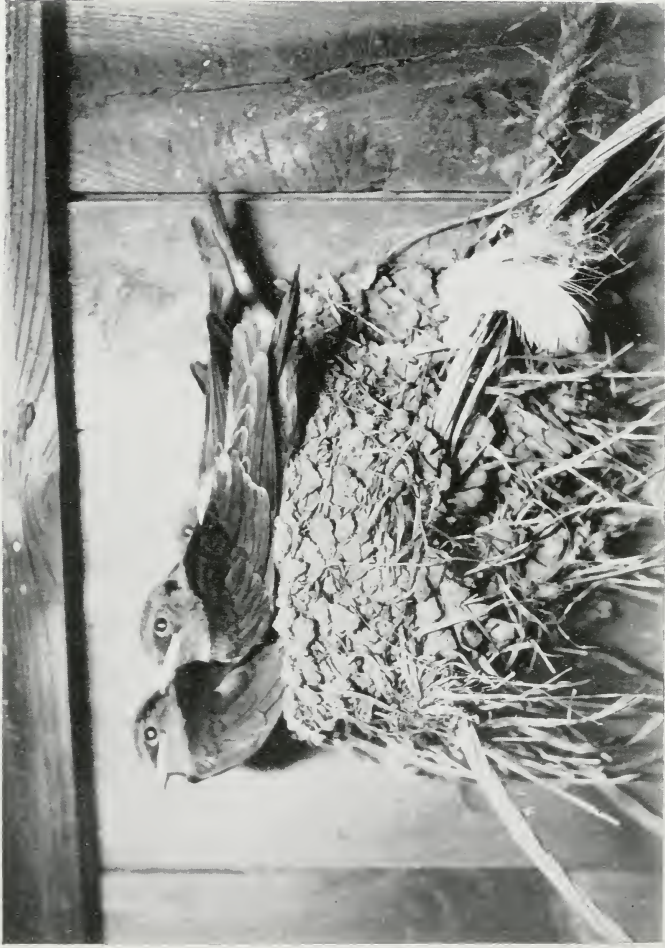
SWALLOWS

To the toiler in waders the channel of the river is a rocky and difficult track with abounding pitfalls. Seen from the grassy, restful bank, it is a broad pathway of glass, and many wayfarers pass up and down as men might follow a road. For the Swallows, the course of a stream, free from even the trifling obstruction of tree or hedge, is a veritable highway. Hither they come from their nesting places many miles away, to join the Martins in ceaseless evolutions. Now, one in the pride of its arrow-like flight passes beneath the very arch of the rod; its narrow wings and forked tail so compressed that it pierces the air like a sharpened point; now in mid-career, the tail suddenly droops and broadens, and setting impetus at naught, the bird turns at right angles to snap an invisible fly. As a piece of aërial mechanism the Swallow is, perhaps, unequalled by any British bird, not excepting the Swift. Its power is shown not in mere speed, but in the dexterity with which it checks the most headlong flight, and in the ease with which it turns. The Martins, with their shorter wings and tail, turn as a skater might, in a perceptible curve. The conformation of the tail is the secret of the Swallow's flight. It is, in effect, a third wing. Drawn together, and with long

slender filaments stretching behind, it offers no resistance to the air, and aids in shaping the course; suddenly depressed (the Swallow depresses it with the swiftness of light) and broadened to its uttermost, it becomes a brake, which, aided by a backing movement of the wings, checks the flight as if by magic. Many birds have this faculty in a greater or less degree. The Martins and the Swifts use it constantly, and in mere wing-force the Swift excels. But in the control of flight, in the sudden check and the instantaneous turn, the Swallow stands easily first.

Water has an unfailing charm for the Swallow tribe; the Swift alone is comparatively careless of it. This, it may be, proves him the alien which science has declared him to be. Most faithful of all, the Sand Martin loves the running stream, and seeks his habitation on its very banks. Sitting here in the shade of the hawthorns, with the river swirling at one's feet, the eye wanders to the drooping willows on the opposite side, amidst which a Sedge Warbler "chur-r-r-s" and "cheeps," and following these down-stream, reaches a sandy bank. It is about three feet high and perforated with holes. Now a tiny sand-coloured bird flits to the bank, hangs for a moment to the side, then disappears in the tunnel. It is his home; probably he was born there. All through our winter days, beneath the burning light of an African sun, the little Sand Martin has had this nook in his mind, and now, with the beat of the South Atlantic in his ear, he is back by the ripple of his old river.

The tunnel in which the bird disappeared is about



YOUNG SWALLOWS FIFTEEN DAYS OLD

two feet deep, bored horizontally. How he or his ancestors excavated this boring is a wonderful thing. The bank is not of soft, yielding sand; if it were, it would be unsuited to his purpose. A man with a knife would find the cutting of the shaft by no means the simplest of tasks, yet this fragile little thing, which could be crushed between the fingers, provided only with a delicate beak and almost imperceptible feet, has contrived it all, cut the shaft, removed the *débris*, and secured for himself a cosy, but, alas, not always an inaccessible home.

At the extreme end, the hole turns abruptly to left or right, and a tiny chamber is hollowed in which the nest is placed. It is made mostly of feathers, caught in the air. A duck feeding near the mill rises on the water and beats its wings, a tiny filament is detached, and the light wind bears it away. Lost? Not so. The eager little eye which has looked down on oceans and continents sees it, and it is borne safely away. It is now in the recess of the tunnel, helping to make a resting-place for the four or five white, translucent eggs.

It may here be noted that nearly all the eggs laid in darkened recesses are white. Those of the Starling and the Great Tit are amongst the exceptions, but for the most part the birds which choose a nesting site in the darkness—the Kingfisher, the Swift, the Owls, the Puffin, the Storm Petrel, and many others, all lay white eggs. The whiteness varies from the pinky translucence of the Sand Martin's and the Kingfisher's, which disappears when the yolk is extracted, to the scaly opacity of

the Puffin's, but they are all undoubtedly white. Indeed, I can call to mind few purely white eggs laid in the open. The Wood-pigeon's might be instanced, but the dense coverts which the bird affects almost equal in gloom the cavern which the common ancestors of the tribe first chose for a nesting-place. With the Swallows, three, including the Swift, which nest in almost total darkness, lay white eggs, and one, whose nest is comparatively open to the light, has eggs profusely spotted with ash-grey and brown. These facts may have some bearing on the question of protective coloration. Or it may be that they are merely a little trick of Nature's, which she does not condescend to disclose, as, for example, why she makes the tip of a black and white cat's tail invariably black, and the tip of the tail of a black and white dog invariably white.

Here by the river the first Swallows usually appear. On one bright April morning, a drowsy bird figure, usually a Sand Martin, is seen flitting across the water, the herald of the returning migrants. Only for an hour or two, when the sun is warm, may it be seen; as the day darkens it will be looked for in vain. It is easy to understand how the once commonly accepted belief in the hibernation of Swallows came to be held. The sleepy appearance of the first comers, their apparent withdrawal when the sun ceases to shine, their habit of assembling close to the river when the time for migration draws near, these facts gave a certain colour even to the bold assertion that *Hirundo* evaded the winter winds by the simple expedient

of going under water and remaining there until springtime came round again.

These beliefs were not the sole property of the uninstructed. Stillingfleet, a Swedish naturalist of repute, talks as familiarly of the Swallows going under water in the autumn as he would of his poultry going to roost a little before sunset. Another authority—a clergyman, too—found Swifts hibernating in a tower, and a third remembered the fall of a cliff where many Swallows were discovered amidst the *débris*. Gilbert White, himself, never gave absolute way to these confident dogmas, although he was often troubled in his mind by the mysteries of migration. He contented himself with stating as facts only what his own eyes had seen, and he treated the more startling discoveries of his friends with a reserve which time has fully justified.

Following the Sand Martin, the Swallow comes, then the House Martin, and lastly the Swift. Why the Swift should be the latest to arrive is not clear, for he is the most rapid and fearless of all bird travellers. Perhaps England is little to his taste, for he is also the first to leave it. He differs from his smaller congeners, in that he does not seek the face of the waters. His home is in the upper air. In the air he lives, eats and sleeps, resting on his wonderful crescent-shaped wings. Indeed, if it were not for the mundane business of nest-building and progeny-rearing, it would appear that there is little need for him to come in contact with matter at all. Even then he chooses some cranny in tower or roof, and save at this time he never soils his

foot with earth. Rocks, trees and telegraph wires, needful resting-places for meaner fowl, have no charm for him. Least terrestrial of flying things it would seem that, apart from his care for his posterity and granted a reasonable supply of insects and of atmosphere, he might live out his allotted span in absolute space and without the need of any planet beneath him whatever.

Resting here by the riverside, the grey walls of the abbey, with the gravestones at its feet, can be seen through the trees. It is midsummer, and the Swifts are sailing high, the black crescents showing clear against the blue. Suddenly a pair descend shrieking, and make at lightning speed for a niche in the abbey, where the wall is bare of ivy. One clings for a moment, then enters, soon followed by the second. Sometimes three birds go in, one closely following the other, and all shrieking the while. Within, in a convenient hollow in the masonry, the nest is placed, a few straws, feathers and dried grass, all collected on the wing and glued together by the mucous secretions of the bird. This is the nest—the nearest approach we have to the edible nest of the Chinese epicure.

At the river there are always House Martins to be seen, easy to be distinguished by the band of white on the back. It is said that they are less plentiful in England than formerly. To speak with certainty upon this point is not easy, for the falling off may be local, and there may be an accession in numbers in other places. Certain it is that many thriving colonies of House Martins have



HOUSE MARTIN AND NEST

of late years disappeared from their ancestral haunts.

The House and Sand Martins have one common characteristic lacking in the Swallow and the Swift : they love to nest in companies. The House Martin especially, not content with the brotherhood of its own kin, shares with the Sparrow and the Rook an affection for the proximity of man. An isolated rookery is hard to find, and a Sparrow rarely builds more than fifty yards from an inhabited house. This is not remarkable in the Sparrow's case, for he is a born hanger-on and thrives on the industry of others. The Martin, on the other hand, seeks its food afar and asks nothing of man save his companionship. True, it may be said that it needs the eaves of his house or barn for a nesting-place,¹ but in the remote fields there are many such barns loved by the Swallow, and these the Martin almost invariably neglects.

I have in my mind an old farm-house set in green fields. A little winding lane, with honeysuckle and wild roses on its banks, runs past the door to join the old coaching road miles away, as a tributary stream might join a river. Behind the house, is a long mistal, fragrant of cows, with slanting steps leading to the granary. Under the mistal eaves, for the whole line, the Martins have built. Here and there is a little break where the mud foundations have given way, but for the most

¹ That the House Martin associates with mankind from affection rather than from necessity, is shown by the fact that, if need be, the wildest sea-cliffs afford it a perfectly satisfactory nesting site.

part the nests are closely clustered; some built together with a common dividing wall. Below, in the golden straw, the pigs lie lazily and ubiquitous poultry search every joint in the stones for unnoted grain. On the roof, tiled with broad grey flags, the pigeons—Blue Rocks, true to the ancestral type of the sea-caves—coo with drooping tails and swelling throats around their mates. And in the midst of all, part of the farmyard domesticity, the Martins come and go like bees; now one hovers or clings to the nest-side, now a white chubby breast is seen at a hole and darts down with such headlong force that one fears it will strike the ground; and all around, the air is filled with a medley of sweet notes, rising and falling, and never for a moment at rest.

Rise early as one will the Martins are already awake. The midsummer day is not long enough for them, and all through the night, faint twitterings come from the nests. In the early April days, on their first arrival, they are usually seen soaring high, singly or in pairs. These birds are the forerunners of the army, but the numbers are soon augmented and the business of the season begins. The birds are in fine plumage, having moulted in their winter quarters, and from this time forward they are never idle. Old nests must be repaired and lined with soft curling feathers, and new ones built. By the lane side is a little pond, and here the Martins come to collect the mud-pellets with which, as with tiny bricks, they build up the rounded walls of their dwelling. Standing almost in the water, they take up an almost imper-

ceptible piece of mud, pressing and rolling it until more adheres, and the ball becomes as large as a fairly large pea. This they carry to the site and affix to the bare wall some six or seven inches below the eave. Great judgment of distance is required here, for the finished nest must come right up to the eave which forms the top. After a vast number of journeys a rim appears on the stone; day by day this increases, swelling outwards, until at length the quarter hemisphere of rustic mud-work is completed. This is if all goes well, for the builders have many difficulties, foreseen and unforeseen, to face. Heavy rains may come and beat upon their house, and in the morning the toilsomly raised wall may be stricken down. Or they may build too quickly and the structure, imperfectly set, may fall by reason of its own weight. Then, when all is finished, a Sparrow, too idle to rake together straws enough to make the shapeless litter in the ivy which he calls a nest, coolly takes possession, and repels the owners on their own threshold. There are legends of Martins blocking up the doorway and leaving the Sparrow hermetically sealed in his ill-gotten abode. But it is to be feared that these belong to the domain of poetic justice rather than of natural history.

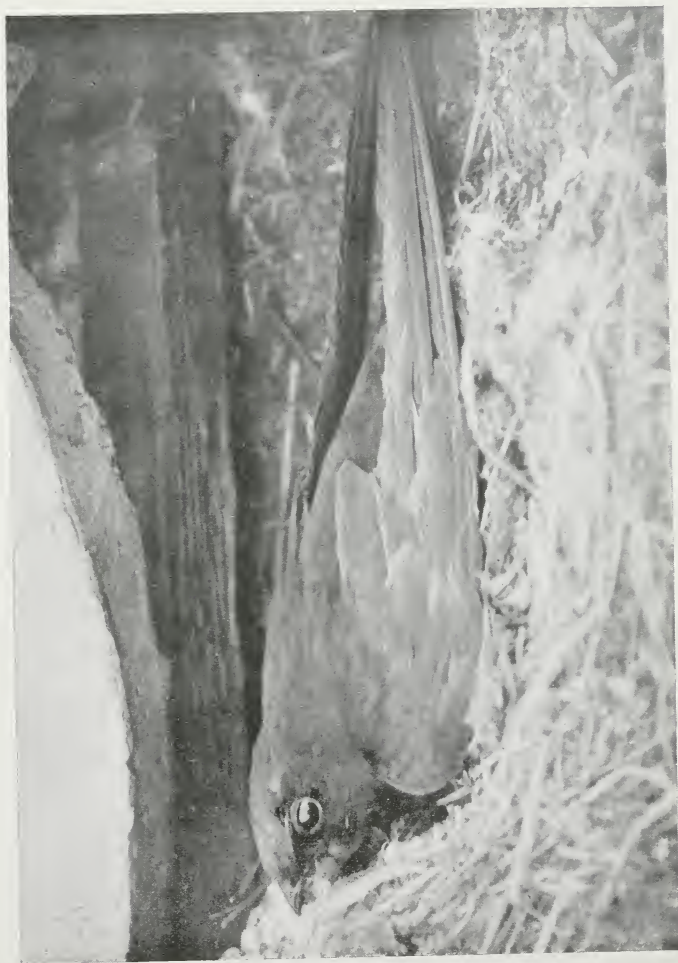
Save for the Sparrows the Martins have few enemies. The farmers usually have an almost superstitious respect for the "Swallows," and never willingly allow them to be molested. The farmstead of which I have spoken, had been in one family for many generations, and as far back as the oldest tradition went, there had been

“Swallows” nesting under the eaves. The time is uncertain, but it is safe to say that birds had nested there for at least two hundred years.

To the pond, the true Swallows also come, and they may be seen carrying in their bills a short straw or twig. This is coated with mud, and the pellet transfixed by the straw is borne to the nesting site. In this manner the wall is “tied in” and the structure greatly strengthened.

So through the long summer days the Swallow flits, happy alike in work and play. Family cares sit lightly upon him. When his young can fly, he meets and feeds them in the air, joyously as though it were a game. “Happy Swallow,” says Davy in his *Salmonia*. “He is the glad prophet of the year—the harbinger of the best season; he lives a life of enjoyment amongst the loveliest scenes of Nature; winter is unknown to him, and he leaves the green meadows of England in autumn for the myrtle and orange groves of Italy and for the palms of Africa.” Happy Swallow! But Black Care rides behind the swiftest horseman, and can it be said that those sabre-like wings leave the spectral rider entirely behind? Alas, no. Now and again as he flies, he may be seen to give a curious little wriggle and shrug. A cruel little parasite is upon him, crosses continents and seas with him, never leaves him from the cradle to the grave.

So true is it that to none have the gods vouchsafed the perfect life.



SWIFT ON NEST

BIRDS OF THE MARSH AND LAKE

AT the head of the lake the water is very shallow, so that the broken pebbles can be clearly seen, and if the eye is drawn to the ring of a rising trout, its shadowy form can be seen darting from beneath the dimple.

The stream which feeds the lake runs into a tiny bay, and so, on the stillest noontide, when the broad expanse beyond is flat as a looking-glass, there is always a ripple and a pleasant murmur of moving water here. On the opposite shore, a dense reed-bed encroaches far upon the surface, forming an aquatic forest with tiny waterways and open pools in its recesses, where the Coots and Waterhens—mere black dots in the distance—swim in and out.

Soon a great shadow falls upon the grass and turns the eye instantly upwards. A Heron is passing over, his broad wings rising and falling in regular beats. He pursues a straight and definite course, with his neck drawn closely between his shoulders and his legs extending stiffly behind, looking like a spine projecting from the thicker mass of feathers of the tail.

The banks of the stream are for the most part open, with reedy and tussocky hollows, but here and there are little nooks, sheltered by trees and bushes with long overhanging sprays which dip

into the current and catch the drifting herbage. When the water falls a little, this flotsam hangs from the boughs in dry, grey wisps, and when the Heron is fishing here in the dim light of the early morning, his gaunt, motionless head and neck match the tangle from the stream so completely that one has no hint of his presence until the broad ashen-grey wings are unfolded and, with his long legs hanging, he lifts himself into the air in ungainly haste. Now, as he flies steadily overhead, his legs, seen against the sky, stretch behind him in a thin horizontal line, balancing his snaky head and pointed bill, making the whole an aërial machine of perfect counterpoise.

Just now he is making straight for home, the belt of great ashes and oaks which stand clear against the horizon at the other extreme of the lake. There are, perhaps, from twelve to fifteen nests: large, straggling platforms with hollows in the centre in which the pale-blue eggs are laid.

When the first branches are reached, these trees are not difficult to climb, although, when one arrives at the nests, the great barriers of sticks still intercept the way, and time and trouble are spent before an opening can be found.

The Heron breeds early, and even in the first week in May there are young birds nearly fledged on the platforms. One appears to be dead, its long legs are stretched inertly out, and its head and neck are drooping over the mass of dead sticks which form the margin of the nest. Its eyes, too, are closed, but as one stretches forward and has it almost within grasp of the hand, it pulls itself



HERON

together and stands on the extreme edge of the sticks, whilst its more alert companion has already fluttered to a near umbrageous summit open to lake and sky, and is standing curving its neck and looking at the intruder with surprised and frightened eyes.

Above, in the blue of the sky, the old birds are wheeling, now and again dropping with outstretched legs almost to the tops of the trees, and then turning and, with a startled "caak," reascending to the altitudes. We catch one of the young Herons, with its ashen-grey plumes just becoming developed, and watch him as he curves his lissom neck in many graceful evolutions; on reaching the ground we set him free, when he runs and flutters until he is lost in the tangle of the undergrowth.

Although the Heron usually builds in high trees, instances are given of the nests having been found on the walls of a ruin or upon the bare hill-side. There is an ancient heronry in Kerry, built in low hollies and mountain-ashes on an island in one of the lakes. One nest is placed in so lowly a position that when a boat runs into the little harbour, amidst the ferns and mossy stones, it is possible to reach the eggs by merely standing on the bow.

In one respect the Heron stands almost alone amongst birds which subsist by catching living prey. Others mostly pursue their quarry; hunting them down either in air or water, with hound-like persistence. The gaunt Heron relies upon his inexhaustible store of patience, standing quite motion-

less for long spaces of time, watching for his victims to draw near. It has been said that his feet emit an odour which draws the fish together, or that the reflection of his pendant breast-plumes in the water below have some attractive influence, but be this as it may, long and weary are the watches, before the lean head is shot forward and the quivering roach, or eel, is borne upward in the relentless bill.¹

Of the other Herons which are included in the British list, the Night, Squacco and Purple are of occasional, although of very rare occurrence, whilst the Little Egret, the Great White and Buff-backed Herons owe their place to the appearance of a few casual stragglers. The Bittern, too, once a familiar bird on English marshes, though the visits of isolated examples are annually recorded, appears to be on the verge of extinction as an English species, and the White and Black Storks, the Glossy Ibis, the Spoonbill and the Flamingo can only be regarded as stray waifs, driven, it may be, by adverse winds, to take refuge on these alien shores.

At the edge of the reed-beds, the Coots disport themselves, riding high in the water with their heads thrust forward as they swim. Even at a long distance, the naked patch of pure white skin on the forehead may be clearly seen. They remain about the lake throughout the year, for, although in some localities many of these birds leave in the

¹ The Heron is constantly accused of destroying trout, but there is strong reason for believing that coarse fish, especially eels, together with toads and frogs, form the staple of its diet.

winter to seek the sea-coast, their numbers show little diminution here. The Coot, differing in this respect from the Waterhen, is seldom seen on dry land, and, if undisturbed, he rarely wanders far from the more reedy portion of the lake. At Christmas-time, however, battues are organized, when guns are posted around the shores and boats are poled through the reed-beds. Then the Coot is seen to be a strong flyer, and soon flight after flight springs into the air, the birds moving in long extended lines, beating their way along the margins and often rising to a considerable height. As they fly the legs are stretched out behind, and the rate of progression is great, equalling that of a rocketing Pheasant.

The Coot's nest is a dense mass of flags and broken stems, usually built in the densest part of the reed-beds and rising to a foot or more above the water. In the young the bald patch on the forehead is not developed, the head and neck being covered with yellowish filaments. As in the case of the Waterhen, the young birds swim and dive with ease directly they are hatched.

The Waterhen, or Moorhen, as it was named when the word moor was used to express a marsh or mere, has many of the qualities of the Coot, but is by no means so consistently a bird of the lake. As a rule, the Coot frequents the greater expanses of water, but the Waterhen, on the other hand, is content with the merest trench or with some small isolated pool far remote from lake or river. Constantly it may be seen on the reedy cuttings by

the railway, moving with nid-nodding head on the reedy waterways, quite undisturbed by the rush of the passing trains.

It is, too, far more terrestrial in its ways than the Coot is, and wanders out into the meadows, especially in the morning and evening, where, with its white under tail-feathers conspicuous, it moves jerkily in search of its food.

The outlet from the lake where it merges into the stream is thickly surrounded by bushes and overhanging trees. In the lower branches of a willow, which grows from the water, the Moorhen finds a place for its nest. From one point only, and that by no means easy of access, can it be approached, but here the movements of the home-coming bird can be easily watched. The nest clears the current by a bare six or eight inches, the base being constantly awash, and from our higher point of view the eggs can be clearly seen. Although the eye can cover the whole expanse of water around, no trace of the parent bird can be made out. Still she must be near at hand, for the eggs are still warm, so we possess our souls in patience. Crouching in waders, pressed against the bank, the time seems long, but she comes at last. Moving swiftly in the underwood, and without crackling of twig or rustle of leaf, she steals to the nest. Then, after pausing a moment to convince herself that nothing has been disturbed, she settles complacently upon the eggs and resumes her task, with the current gently swirling about her.

In the nesting habits of the Waterhen many interesting facts have been observed. The nest is



LITTLE GREBE ON NEST

often seen to be barely raised above the surface of the water, and it seems that, if the tide rose ever so little, the eggs must be inundated. But this rarely happens. Sometimes the reedy structure is balanced on the partly submerged branches of a fallen tree, and these rise with the current, so that the nest is still held clear of the water. But even where the foundation is fixed, the Moorhen has resources in reserve to evade the oncoming flood. In these times of stress she has been known to remove the eggs to the bank, and then both parent birds have been seen busily engaged in adding fresh material to the nest. Later, the hen has carried the eggs in her bill and replaced them in the raised structure where they might now rest high and dry.

Of the five species of Grebe which are included in the British list, two only, the Great Crested and the Little Grebe, can be described as familiar birds upon English meres and marshes.

Of the remaining three, the Red-necked Grebe is a more or less irregular winter visitor, and has never been known to nest in this country. The Slavonian Grebe is a northern species, visiting Scotland at times in considerable numbers, but to be accounted little more than a casual straggler to southern Britain, and the Eared Grebe, a southern race, distinguished by its slightly upturned bill and the patch of reddish-gold feathers behind the ear, occurs still more rarely.

The Grebe family have certain characteristics which set them apart from all other British birds.

The nests of both the Waterhen and the Coot have been known to drift from their moorings, and the birds have thus reared their young on a floating raft of reeds. But they, in common with other aquatic fowl, seek a nesting-place which, in the first instance at any rate, shall be secure and dry. But with the Grebes the nest is often a mere pad of dank sedge, constantly saturated and liable to float in any direction, save that the place selected is usually a small lagoon in the heart of the reed-bed, where the high stems growing on every hand guard the drifting nursery against a far-extended voyage.

Other peculiarities of the Grebes are that they frequently swallow their own feathers, which may be found in a compacted mass in the stomach; that when disturbed they conceal the eggs with blades and stems rapidly torn from their surroundings by the bird's bill, and that they show singular care for their young, when the little black dots first take to the water.

In the reeds of the Heron-lake the Little Grebes nest annually, and sometimes, if the boat be steered gently along the windings of the narrow waterway, an interesting sight may be seen. As we draw nearer to the nesting-place, half-hidden by the forest of rushes, we gain no glimpse of the bird, but a movement on the face of the still lagoon, as of a diving water-rat, followed by a slight vibration in the reeds, warns us that the parent Grebe has been startled from her home by our coming. For a long time there is silence, broken



Photo by J. Atkinson]

GREAT CRESTED GREBE'S NEST AND EGGS

only by the cry of a Coot far out on the lake, or by the croak of a Heron soaring above the distant trees. Then from the densest part of the reeds comes the low "twit-wit," and again we notice a trembling in the upper stems. The reason for the warning is soon apparent. Two small, dark fluffy balls, led by the silence to believe that the enemy has gone by, have moved to the edge of the rushes and now swim confidently out into the lagoon. They are so near that they could almost be reached by an outstretched oar, and the mother-bird at once realizes that they are in danger. She suddenly appears from beneath the water at their side uttering her sharp "twit-wit," and the little ones take refuge beneath her wings, when she conveys them rapidly to the shelter beyond. It is said that on occasion she will dive with the young still clinging to her sides, and this, I think, may be readily believed.

The Great Crested Grebe has many habits in common with the more familiar Dabchick. It may still be found throughout the whole year on certain of the more extensive sheets of water in England, but from the reticence of its ways it usually evades attention. The beauty of its plumage has led largely to its destruction in the past: the silvery whiteness of the under surfaces, from which its name Satin Grebe is derived, having long ago attracted the envious eye of Fashion. In certain parts of the Continent the Great Crested Grebe is regularly hunted down for its skin, and if it were

not for the wise system of protection extended to it in this country, the species would doubtless have already become extinct.

Another curious bird, but one rather of the marshes than the lake, is the Water Rail. It is sometimes found at a considerable distance from the water, but it is none the less truly aquatic, for, although its feet are not webbed, it swims and dives freely. It has many characteristics in common with the Corncrake, shunning observation with even greater zeal, and rarely seen except when driven forcibly from its haunt in the rank vegetation. Then it flies heavily with down-stretched legs for a short distance, dropping into the first belt of reeds which may offer it shelter. But although in the marsh it appears to distrust its own wing-power and to rely rather on running for the evasion of its enemies, it is still capable of far-extended flights, and on migration has been known to alight upon ships five hundred miles from the nearest land.

The Water Rail is usually a silent bird, but in the spring, one is sometimes startled by its loud, crooning cry, often repeated from the shelter of the reeds. The nest is deeply hidden in rank herbage, and contains usually seven or eight eggs of a creamy-white dotted with reddish-brown and grey. When approached the Rail slips away so swiftly and silently that it is a most difficult thing to catch a glimpse of it at all. It moves more like a rat or a mole than a bird, pressing close to the ground and stealing through the densest sedges, without once

permitting itself to be seen in the open. Although it is fairly plentiful in certain localities its presence is often unsuspected, even by those who spend their whole lives near its haunts.

The Water Rail would seem to rear two broods in each season, the young in down being found both in early May and in August.

Close to the shore of the lake is a small island, little more than a peninsula, indeed, for the encroaching reed-beds on the inner side connect it with the land. It is covered with grass and ferns set amidst low trees, and its sides are indented with small, rocky harbours screened by overhanging branches. As one examines the tangled brushwood, noting every slight depression in the herbage, something bright appears gleaming in the grass. Watching this speck of light carefully, set as it is in the matted greenery around, the outline of a dusky head becomes slowly distinct and we are able to make out a Mallard sitting on her nest. She allows us to draw near to within a few feet, trusting to her dry-leaf tinted plumage for concealment, then, with trailing wings, she scuttles lamely to the water and swims restlessly to and fro, with her anxious head turned to the shore of the island. A mass of sea-green eggs are closely packed in the downy hollow of the nest, some almost hidden by the feathery lining, and all hot from the recent contact with the duck's body.

Every year one or two pairs of Mallard nest upon the island or on the grassy and heathery banks near at hand, and when one is fishing in the

later summer, the little flotillas may be seen, headed by the parent duck, investigating every recess and leafy nook of the coast-line, or making more extended excursions to the distant reed-beds, when, moving in close order, they look like dark streaks on the surface of the lake.

The young do not attain the power of flight for two months or more. As they grow older they appear to become aware of their helpless condition, and, during the day especially, they remain closely hidden in the reeds. At this flapper stage of their existence, they may easily be tracked down by spaniels and shot as they flutter before their pursuers, a very indifferent, even if a profitable, form of sport.

Perhaps one of the most interesting peculiarities of the Mallard is the remarkable change of plumage to which the drake is subject at certain seasons of the year. Throughout the winter and in the early summer he is a resplendent bird, with glossy green head, chestnut breast and ashen-grey, blue-banded wings. At about the end of May his appearance begins to change. The velvety black curling feathers of the tail fall away, the gay tints of head and breast merge into a dull brown, and by mid-July there is little or nothing by which to distinguish him from the most sombre-hued duck.

But this curious eclipse is of short duration. In August new feathers appear, by degrees his brilliant colours are replaced, and in October he stands forth again radiant in chestnut, green and ashen-grey.

Many birds take on new and brighter colouring

as the nesting season approaches, but it may be said that in few is the double transformation so rapid and so marked as in the case of the Mallard.

As the winter draws on, great flocks of Mallards from northern latitudes visit the lake, and these are accompanied by parties of Widgeon and Teal. The Teal are far less wary than any of their congeners, and if startled from their shelter they usually fly in circles about the lower part of the lake, soon dropping again into the reeds. Both the Teal and the Widgeon remain upon the water during the day, but the Mallard wander afar, returning to feed on the plashy margins at almost exactly the same time every night. Just as the darkness falls on the wintry scene, the listener in the reeds may hear the whistling of wings. Gradually the sound grows more distinct, and at length the dim forms are seen beating their way through the gloom. They are so near that the young duck-shooter usually fires at their first approach, and is surprised to find that no bird falls, but that the flight appears instantly to melt into the upper darkness and to vanish like shadows. They are really at a considerable height, and, if left undisturbed, they will wheel round and round over the feeding-ground, falling lower at every circle, until at length they drop with a faint splash into the reed-pools, ploughing a long, rippling track in the face of the dark water.

The Teal and the Mallard are both night-feeders, but the Widgeon, although its whistling cry may often be heard in the darkness as it wings its way

with other nocturnal fowl across the lake, will often seek the meadows in broad daylight to sustain itself upon the short grass.

The Teal is the smallest and one of the most beautiful of the British ducks, and like the Widgeon, usually appears in England as a winter migrant only. A few pairs, however, linger during the summer in suitable localities and their nests are occasionally found. The Widgeon, on the other hand, consistently return to their Scandinavian breeding haunts in March and April, deserting England altogether and only remaining in comparatively rare instances to rear their young on the more northerly Scottish lakes.

The majority of the British ducks are more or less irregular winter visitors only. They, with the Mergansers, form an interesting group consisting of about thirty species. Of these, eleven are extremely rare. The Ruddy Sheld-duck, American Widgeon, Red-crested Pochard, Ferruginous Duck, Buffel-headed Duck, King Eider, Steller's Eider, Velvet Scoter, Surf Scoter and the Hooded Merganser are all the merest stragglers, and are included in the list by reason of a few casual occurrences.

Of those remaining the Shoveller may at once be distinguished by his broad spoon-shaped bill. It is mainly a winter visitor, but a few pairs remain to breed in Great Britain.

The Gargany, a small duck resembling the Teal, known, indeed, as the Summer Teal, differs from most of its kin inasmuch as it is a summer visitor

only. It is a rare and local species, but is said to be increasing in certain localities, owing to wise protection during the nesting time.

The Gadwall or Grey Duck, a bird resembling the female Mallard save for the white bar on the wing, is a winter visitor also of rare occurrence. It is an extremely shy fowl, hiding closely in the reed-beds during the day and feeding by night.

The Pochard is a much more abundant species, and although in the main a winter visitor, it breeds in considerable numbers on the more extensive lakes and meres both in England and Scotland. The plumage of the drake is ashen-grey, with the upper breast and neck black and the head of a deep chestnut-red. This latter characteristic has caused it to be known in some localities as the Red-headed or Hot Poker.

The Pintail is a most graceful bird, made conspicuous at once by the long feathers of the tail. Under the title of Sea Pheasant it is sometimes confused with the Long-tailed Duck, but in plumage the two are essentially dissimilar. In the Pintail the head of the drake is dark-brown, with a white line extending down the neck and joining the greyish-white breast, with the upper surfaces ashen-grey and the tail black. In the Long-tailed the whole plumage is deep brown merging into black and beautifully variegated with pure white. Both are winter migrants only, the Pintail being a fairly regular visitor and much the commoner bird of the two.

The Golden-eye, also, is a constant winter visitor to English lakes and estuaries, although never in

large numbers. The drake is a handsome bird, with glossy green head, bluish-black back and white breast. It has also a conspicuous white spot near the bill, and derives its name from the golden-yellow colour of the eye. The nest is said to have been found in the extreme north of Scotland.

The Tufted Duck is a small compact fowl with purple crested head, black breast and back and white under surfaces. It swims low in the water and feeds chiefly by diving. Considerable numbers occur in England in winter, and many remain to breed.

The Smew is strictly a winter visitor, never having been known to nest in this country. The plumage of the adult drake is white streaked with dark lines and delicately marbled with ashen-grey. Those seen in Great Britain, however, are usually either young birds or females, and their general colouring is grey with heads of a reddish-brown.

The Scaup, Common Scoter, Eider and Sheld Ducks are more essentially marine species and are rarely seen in the inland lakes. The Scaup has a dark head and throat, with ashen-grey back and wings and white under surfaces. It occurs in England in winter, frequenting the mud-flats and saltings, and is said to nest occasionally in Scotland.

The Scoter or Black Duck is, as its name implies, entirely black. It is the most numerous of the winter visitants, and flocks numbering many thousands occur in severe weather upon the east coast. The parties gather together in the evening, and the dense black masses may be seen from a

great distance as they rest upon the sea. The Scoter nests occasionally in the north of Scotland.

The Eider is less consistently a winter visitor to Great Britain than others of its congeners, and, indeed, in the north of England and in Scotland it is resident and nests annually in great numbers upon the coasts. In the drake, in full breeding dress, the under surfaces are black and the back and wings white, a reversal of the usual order in plumage, and these hues, together with his buff breast and black and green head, place him in strong contrast with the females of the species, which remain in their sombre brown garb throughout the year. The nest of the Eider is well known by reason of the vast quantity of the softest down which, torn from the breast of the duck by her own act, is used as a lining. This is regularly collected as an article of commerce.

The Sheld-duck, too, is a resident species and, as in the case of the male Eider, the drake, with his glossy head and variegated black and white plumage, is a strikingly handsome bird. In his colouring he stands alone by reason of the rich chestnut band which extends around the upper breast and covers part of the back. The nest of this species is usually made in rabbit-holes.

Of the Mergansers, distinguished from the true ducks by their narrow serrated bills, a feature which has gained for them the name of Saw-bill, the Red-breasted is the most common. Although in England it is mainly a winter visitor, it is resident in the north, and in most parts of Scotland is a familiar breeding species. The drake has a green

crested head and white neck, with black back and grey under surfaces, but he is more readily known by his red bill and the band of chestnut-red flecked with black which crosses his breast.

The Goosander is a larger bird, a migrant from northern latitudes, breeding much less commonly in Great Britain, and lacking the crest and the chestnut band of the common Merganser.

GEESE

Of the eleven species of Geese included in the British list, six are extremely rare and all are winter visitors only. At one time the Grey-Lag, from which the domesticated birds are derived, was resident in England, nesting regularly in certain of the fenny districts. Now it is a rare comer, although it is said still to breed in the extreme north of Scotland. Of the remaining five, the White-fronted Goose occurs annually in small numbers, more especially in the southern counties of Ireland. It is of a brownish-grey hue and is distinguished from its congeners by its white forehead. The Bean- and Pink-footed Geese are also regular autumnal migrants to this country, and were at one time deemed to be identical in species. In their plumage (brownish-grey) and general character they are extremely alike, the distinguishing features being that the Pink-footed is smaller, with a shorter bill, and that the feet are of a distinct pink as compared with the more orange colouring of those of the Bean Goose. Lord Lilford

states, however, that this latter peculiarity is not always to be relied on.

The Bernacle and the Brent Geese have also certain characteristics in common, inasmuch as both have black feet and are altogether of a blacker-grey hue than any of the preceding species. They are at once set apart, however, by the fact that the face of the Bernacle is pure white, whereas in the case of the Brent, the whole of the head and neck is black, save that the neck is relieved with a small band of white. In addition the Brent is much smaller in size, being the smallest of the British Geese. Both species occur in winter, sometimes in considerable flocks, the Brent more commonly. Indeed, the Brent is the most numerous of any of the species which visit the British Isles.

SWANS

Four species of Swan are given as British. Of these Bewick's and the Polish Swans are of the rarest occurrence. Of the remaining two, the Whooper and the Mute Swan, the former visits these islands more or less irregularly in winter. The Mute Swan is the common domesticated species, and there is no doubt that many shot in this country are merely escaped birds from some ornamental water. At the same time, seeing that the Mute Swan, in a perfectly wild state, breeds in parts of Sweden and Denmark, it is highly probable that occasional stragglers reach these coasts. This bird, so well known for its peculiar grace and

dignity, is said to have been introduced into England from Cyprus by Richard the First. The two species may be at once distinguished by the bill. In the Whooper the lower part of the bill is black and the base yellow. In the Mute Swan the base is black and the lower part deep-orange.

From the earliest ages wild fowl have been pursued in Great Britain, not only for sport, but as a means of livelihood. The old-time fowlers were naturalists as well, and they appear to have coined a variety of terms to express gatherings of birds, some of which are now obsolete. As most of these set forth the character and general appearance of the groups with no little accuracy, even if a small number are now unintelligible, it is well to rescue as many as possible from oblivion.

Thus we have—

A herd, bank or troop of Swans.

A skein or gaggle of Geese.

A plump, sord, suke, badelying or paddling of Mallard.

A squad, knob, sprig, knot, coil, spring or string of Teal.

A bunch of Widgeon.

A dopping of Sheld-ducks.

A rush of Pochards.

A wisp or walk of Snipe.

A fall of Woodcock (probably in allusion to their sudden descent on migration).

A covert, team or fleet of Coots.

A trip of Dotterel.

A stand, wing, flight or congregation of Plover.

- A detachment of Curlew.
- A cloud or fling of Dunlin.
- A hill of Ruffs.
- A group or sege of Herons.
- A company of Storks.
- A regiment of Flamingoes.
- A brood of Black Grouse.
- A brood or pack of Red Grouse.
- A covey of Partridges.
- A bevy of Quail.
- A nye or nide of Pheasants.
- A rafter of Turkeys.
- A muster of Peacocks.
- A cast or stud of Hawks.
- A building or budget of Rooks.
- A chattering of Choughs.
- A crowd or congregation of Redwings or Field-fares.
- A band of Jays.
- A murmuration of Starlings.
- A flock of Larks.
- A gathering, assemblage or flight of Swallows or Swifts.
- A colony of Sand Martins.
- A watch of Nightingales.
- A charm of Goldfinches.
- A tribe, cluster or mob of Sparrows.
- A batch of Wagtails.

About the tall reeds and willows which fringe the lake at the point from which the river flows, a small, active bird is constantly seen. It is of

brownish hue, with a jet-black head and breast relieved by a collar of pure white. It is generally known as the Black-headed Bunting, a name obviously appropriate, and is so described in the earlier editions of Yarrell. But it would appear that this title had already been bestowed upon a much rarer member of the Bunting group, a bird, indeed, which is hardly known in Great Britain. Thus our familiar black-headed form has been rechristened the Reed Bunting, a name suitable enough, but by no means so clearly descriptive.

The Reed Bunting is resident throughout the year, and in the depth of winter may still be seen flitting about the frozen margin of the lake. In spring the cock ascends to the topmost spray of the reeds or willows to utter his somewhat monotonous song, the prolonged notes bearing some resemblance to those of the Yellow-hammer.

The nest is built in the tangled herbage at the base of the bushes, and is formed of dry grass lined with hair or with the feathery plumes of the reeds. The four or five eggs are of a pale brownish hue streaked irregularly with black.

At one time the Bearded Titmouse—the interesting little Reed Pheasant—is said to have haunted the lake, but the silvery notes are now never heard. Indeed, the sight of a party of these delicate little creatures with their tawny and white wings and black moustaches, climbing and hanging about the swaying reeds, is now rarely to be gained in England, except in the more remote parts of the Norfolk



REED BUNTING ON NEST

Broads, and even here it would seem that their numbers are rapidly growing less.

To the willows and hazels at the edge of the stream, as well as to the reed-beds, certain small warblers come in the summer. Of these, the Sedge Warbler is by far the most abundant. With the exception of the Sandpiper and the Dipper, the angler has no more constant companion than the little Sedge Warbler. True, its confidence is not easily gained. As one approaches the river where the willows grow so thickly on the bank that a way must be forced through their branches before the shingle below can be reached, we hear the rapid notes, "chip-cheep, chissock-chissock, cheep-chip," many times repeated. The bird is so near, almost at our feet, in a moment more we must see it. No. On the instant that we stand still the song is arrested. Peer as we will through the narrow green leaves which droop and dip into the slowly moving current beneath, no sign of the bird meets the eye. We brush our way down the sandy declivity, a little disappointed. Now the rod is put up, and, standing on the shingle, we cast up-stream to the break in the water where it swirls round the great mossy stone. For the time we have forgotten all save the rightful object of our pursuit: the good trout which is well-nigh certain to be lying just beyond the fringe of the weeds. As we cast, the "chip-cheep, chissock-chip" starts out again from the willows almost at our elbow. But again the song at once ceases. So we resume our

task peacefully and by degrees the little brown singer becomes reassured. We see it soon, moving furtively in the deeper shade; now it descends to explore the tangled roots of an oak-tree in a recess hollowed by the stream; now it follows the line of an overhanging willow bough, threading its way through the leaves, till at length it reaches the great wisp of drift-weed caught by the lowest branches. Here it rests for a moment full in the open, and its little throat swells as it utters its shrill rapid notes; then unobtrusively, but without haste, it steals back to its shelter. But it never goes far away. All through the long summer days, when we come, wading deeply, to the stretch by the willows, we hear its song and rarely miss the sight of the bird itself, moving to and fro in the loved haunt which it has travelled so far—it may be from South Africa—to regain.

With the exception of the Nightingale no bird is so truly a night singer as the Sedge-bird. Often in the summer midnight, when animated Nature is sleeping in the hush of the mowing-grass, or in the thickly-leaved woods, we hear, down by the river, the sudden ring of the familiar notes. They are repeated, time after time, for the Sedge-bird appears to sing more continuously at night than in the daytime. Even when it becomes silent, a pebble thrown lightly in the bushes will set it singing again—a peculiarity not, I think, to be noted in any other British bird. Indeed, as the belated traveller takes his way home in the darkness, this small warbler seems to delight in cheering him on his path with a few merry staves. Oftentimes as



SEDE WARBLER ON NEST

one drives along a country lane in the far-advanced night, the beat of the horse's hoofs will set the little singer going, the music dying down as the sound of the wheels becomes faint in the distance.

It may be noted here that many birds will continue to sing confidently so long as one keeps moving; when the footfall is arrested they become at once suspicious, just as Partridges, which lie closely before the advancing guns, will spring instantly into the air directly the line is checked.

The song of the Sedge Warbler, intermittent and even jarring as it sometimes is, has a striking and even thrilling effect when it suddenly breaks the stillness of a June night. Although the notes differ altogether from those of the Nightingale in quality and power, they are constantly confounded, and the paragraphs which appear in the papers from time to time, announcing the occurrence of the king of songsters in the more northerly counties, usually refer in reality to the Sedge-bird.

Another unobtrusive little bird is the Reed Warbler, and by reason of its habitat, characteristic movements and even of its song, it may easily be mistaken for the more abundant Sedge Warbler. Yet on examination the two birds are seen to be quite distinct. In plumage the Reed Warbler lacks the mottled appearance of the Sedge Warbler, the whole of the upper surfaces, with the exception of a narrow yellowish streak above the eye, being of a uniform brown. Like others of the Aquatic warblers, the middle feathers of the tail are about a

quarter of an inch longer than the outer, giving the tail a rounded appearance.

The nest is constructed on lines beautifully adapted to the exigencies of its surroundings. It is formed for the most part of very long grass carefully woven about the stronger reed-stems, and is so deep that, although the pendant cradle is rocked violently by every gust of wind, the eggs and callow young remain quite secure. Sometimes, however, in its choice of a breeding site the Reed Warbler belies its name, for its nest has been frequently found, not only far from all reed-beds, but even from the neighbourhood of water. Saunders states that it has been known to build annually in lilac-trees in a garden at Hampstead. It has been noted by Yarrell that in some districts, this species is the most common victim of the Cuckoo's parasitical habit.

The Reed Warbler is usually somewhat later in its arrival than the Sedge-bird. Its distribution in Great Britain is irregular, being, of course, largely determined by the suitability of each locality. Still, in many places where it might be expected to occur, and, where its near congener the Sedge Warbler is abundant, it is conspicuously absent. In common with the Nightingale, and many others of the warblers, it appears to avoid certain of the south-western counties, Cornwall and Devon in particular, in the former of which it is practically unknown.

Five species of these warblers named aquatic are given as British; the sixth, the Marsh Warbler, although it has occurred in England, has not re-

ceived recognition from the chief authorities. Of the five, two are distinctly rare. The Great Reed Warbler, the largest of the race, has only two or three well-authenticated occurrences to its credit: certain freshly killed specimens, examined by capable naturalists, being believed to have been imported from Rotterdam. The bird in question is nearly eight inches in length, and is of a lightish-brown hue with the breast and under surface a dingy white. It is well known in many parts of Europe, especially in Belgium and Holland.

The Aquatic Warbler, too, is a bird of two or three occurrences only. It is about four and a half inches in length and bears a general resemblance to the common Sedge Warbler, with which it has sometimes been confounded. Its distribution on the European continent is restricted and it would nowhere appear to be a common species.

Another reed-loving bird is Savi's Warbler, a species first claimed to be distinct by the Italian naturalist whose name it bears. It is about five and a half inches long, the upper surface of the body is of a reddish-brown hue, the tail marked with faint dark bands and the under surface pale reddish-brown, except the chin, which is white. A few examples of this warbler have been obtained in this country, chiefly in the Fen districts, but there is reason for believing that it was once a regular, although always an uncommon visitor. With the draining of certain of its haunts, it would seem to have been driven altogether away, for no note of its occurrence, so far as I am aware, later than 1849, is recorded.

BIRDS OF THE SHORES AND MUD-FLATS

THE long, narrow point of land stretches far into the North Sea. It is for the most part a series of dunes with smooth, sandy hollows, fringed and partly overgrown by stiff, wind-beaten bent-grass. On the one side the salt waves beat on the shingle, and on the other the dull broad expanse of the river extends to the dimly-seen Lincolnshire coast. As the tide falls the river withdraws to its channel, and the vast mud-flats lie exposed, their dead grey monotony broken here and there by gleams of light where the water still rests in the depressions. Birds migrating from the Norway littoral find in this narrow isthmus their first resting-place, and here, in the autumn and winter months, great numbers of the wader clan may be seen following the line of the tide, or running hither and thither as they seek the small marine creatures upon which they feed.

At first sight, and in the distance, the birds which compose the flocks appear almost alike, save that here and there the form of a Curlew or Whimbrel stands conspicuously large as compared with the lesser races. But on closer examination it is seen that although they are mostly small snipe-like birds, with sharply-pointed wings and long slender bills,

they are marked by widely different characters of shape and plumage. Mighty travellers are they, most of them having seen the light amidst the *tundras* and black marshes of Siberia, where for centuries their nests and eggs were undiscovered.

With the exception of the Curlew, the Whimbrel is the largest bird now to be seen on the flats. So like the Curlew is it in shape and plumage, and especially in its long, curved bill, that it is well described by the old fowlers as the Jack or Half Curlew. It differs materially, however, from the larger bird in its manner of life. The "full" Curlew is a resident, nesting annually on English moorlands. The Whimbrel has never been known to breed in England, nor, indeed, in Great Britain, except, on more or less rare occasions, in the Orkneys and Shetlands. It is a bird of double passage, arriving on our coasts in May (often in large numbers, and so regularly that it has come to be known as the May-bird) on its way to its nesting haunts in the far north.

In the Faröes and in Iceland it is a common breeding species. The nest is a mere depression in the herbage, and the eggs, four in number, are of an olive-green hue blotched with brown.

The movements of the Whimbrel are so rapid that by the end of July the birds are on their return journey, and are again seen on the flats, the young arriving first. Vast numbers, however, do not appear to tarry, but merely pass over high in the air, and are to be identified only by their whistling cry.

Of the wandering flocks, those of the Dunlin are

the most numerous. As these vast congregations sweep by, flying low, they appear grey, but when they ascend and turn they flash pure white in the sunshine. Far over the water they look like a wreath of smoke on the horizon, and they are often lost to sight until at length, suddenly wheeling, the flash of silver reveals them for an instant in the far distance. Seen near at hand, in the fall of the year, the head, back and wings of the Dunlin are of a greyish brown, and the under surfaces silvery-white; but in full breeding plumage the male takes on handsome chestnut and black hues with something of the lustre of the Snipe, the lower breast, like that of the Golden Plover, becoming a deep black.

The nesting area of this species is unusually wide, extending to the most northerly latitudes, yet numbers remain to rear their young on remote Scottish mountains, and even on certain English moorlands at sufficiently high elevations.

As one watches the detachments running swiftly on the flats, a bird may be noticed which at first sight, in its grey and white plumage, bears a strong resemblance to the Dunlin, with which in by-gone times it was constantly confused. It is seen, however, that the bill is curved like a Curlew's, and that as it flies, a broad band of white on the back is disclosed.

This bird—the Curlew Sandpiper—has long been observed as a familiar visitor on migration to English estuaries, but has never been known to nest in Great Britain; indeed, until recent years,

the exact position of the breeding sites remained undiscovered.

But the latitudes in which the eggs might be looked for, had long been mapped out by ornithologists, and at length, after many expeditions had failed, Mr. H. L. Popham, of the British Ornithologists' Union, on July 3, 1897, succeeded in discovering a nest at the mouth of the Yenesei, one of the great Siberian rivers which flow into the Arctic Ocean. This nest was in a hollow in a ridge on the *tundra*, and the four eggs, the only examples known, resemble those of the Snipe, but are somewhat smaller.

Sometimes, mingling with the Dunlin, the Purple Sandpiper, a bird alike in shape, but obviously darker and more purple in hue, may be distinguished. This Sandpiper, however, although it is widely distributed in winter on the coasts of Great Britain, and is believed to nest at times on the Farne Islands and in the Outer Hebrides, is by no means numerous.

It is not a true bird of the mud-flats, preferring rather the rocky edges of the sea, where in parties of eight or ten, it may be seen flitting amidst the sea-weed, oftentimes partly submerged by the spray as it feeds. Although the Purple Sandpiper is not web-footed, it swims and even dives freely on occasion, but does not, I think, commonly take to the water unless wounded or pursued.

The Green Sandpiper, too, visits these latitudes in its spring and autumn migrations, but is usually

seen further inland, frequenting the drains and muddy pools in the vicinity. It is an extremely wary bird, and when startled from its haunt flies straight into the air, uttering a shrill, whistling cry. This species breeds in the far north, and curiously enough for a Sandpiper, usually selects the deserted nests of various tree-building birds in which to lay its eggs. In several parts of England these birds, in full breeding plumage, have been found in mid-June, but there appears to be no satisfactory record of the eggs having been found in this country.

A second species—the Wood Sandpiper—was at one time believed to be identical with the Green Sandpiper. In many respects they are alike, but specific differences are now clearly known to exist.

Of other species of Sandpiper classed as British, the Broad-billed, Pectoral, Bonaparte's, Buff-breasted, Bartram's, Spotted and Yellow-shanked, all are the rarest stragglers, mainly from North America.

All through the period of the autumn migration, changes are taking place in the hordes of waders which visit the mud-flats. Day by day one watches the wandering groups on the look-out for some rare stranger from Siberian wastes which may have come in the night. Sometimes, running with the flocks, a tiny bird may be made out, a miniature Dunlin, as it would seem, so minute that it is at once conspicuous. The Little Stint is at best an uncommon visitor to English coasts, the British Islands apparently lying to the west of its usual

line of migration; but here, if anywhere, it may be looked for.

As it trips daintily upon the mud, or flits over the heads of its companions to obtain a foremost place, it constantly utters a soft piping cry, far different from the louder note of the Dunlin. The Little Stint is one of the birds whose nest for many years evaded detection. In 1843 the explorer Middendorff found its breeding haunts in the far east of Siberia, but it was not until 1875 that eggs were discovered in Europe.

In Seebohm's *Siberia in Europe* an interesting account is given of the success of his expedition. The explorers had reached a desolate region near the mouth of the Petchora river, a waste of dead flat land full of little lakes, mostly very shallow, and filled with black and coffee-coloured mud with an inch or two of brackish water upon it. Mr. Seebohm writes:—"I had not gone far before I heard our interpreter, Piottuch, shouting in a state of great excitement. Harvie-Brown was the first to come up, and I joined them shortly afterwards. I found them sitting on the ground with a couple of Little Stints in down. I sat down beside them and we watched the parent bird as she was fluttering, flying and running all around us, sometimes coming within a foot of one of us. We went a short distance, and Piottuch again made loud demonstrations of delight. This time it was nest and eggs. The nest was like that of most Sandpipers, and a mere depression in the ground, with such dead *maroshka* (cloudberry) leaves and other dry material as was within easy reach scraped together to serve

as lining. . . . The ground where the nests were placed was full of tussocks and hummocks close together, the swampy ground between being almost hidden, or traceable only by rows of cotton-grass."

Temminck's Stint, the least of the British Sandpipers—a bird even smaller than the Little Stint—also visits England on rare occasions; and the American Stint is included in the list on the strength of some two or three occurrences.

Late in October, parties of Knots, birds plainly larger than the Dunlins, appear upon the flats, sometimes in considerable numbers. In their autumn plumage they are of a lightish-grey hue with the dark edges of the wing-feathers clearly discernible. In spring, however, the male takes on brighter tints of reddish-brown, black and white, and his breast changes to a rich chestnut. The nesting habits of the Knot still appear to be involved in considerable mystery.

In 1876, Col. Feilden, naturalist to H.M.S. *Alert*, came upon the nestlings in Grinnell Land, and in the same latitude other examples of the young have been taken. Eggs believed to have been laid by the Knot in captivity have, from time to time, been exhibited, but hitherto, notwithstanding the vastness of the flocks seen on migration, the true breeding haunts of the birds, with nests and eggs in their natural surroundings, have still to be traced.

Many other birds visit the flats; some, it may be, appearing for a single day, whilst others remain during the entire winter. Hither come the Sander-

ling, to be distinguished at once by his silvery hues intermingled with black, the Redshank and the Grey Plover. Here may be commonly seen the Bar-tailed Godwit, and upon some happy occasion, a sight of the Ruff and of the still rarer Black-tailed Godwit may be gained. Here, too, in the bents fringing this land of the migrants, the Rustic Bunting once appeared, and in the rough pastures beyond, MacQueen's Bustard, two extremely rare occurrences in England.

The Grey Plover resembles the Golden in many respects, but may be readily distinguished by its larger size, lighter hue, and by the blackness of the under wing-feathers displayed in flight. It is one of the species which nests in the far north, and is known in England only on the spring and autumn migrations. The Bar-tailed Godwit, too, is familiar only as a bird of passage, and although its eggs have been obtained in Finland, little is known of its breeding haunts. The Black-tailed, on the other hand, now rarer on migration, is said at one time to have nested, with more or less regularity, in the fens of Norfolk and Lincolnshire.

The Redshank, although many which visit the mud-flats are foreign-bred birds, nests in most of the English counties. Its distribution is somewhat local, but in most of the wider marshy expanses of this country, one or two pairs, and often small communities, may be found breeding. It is a greyish-hued bird with long red legs, and usually makes its presence known by its loud whistling cries as it flies round and round the disturber of its solitudes.

The two kindred species, the Greenshank and the

Spotted Redshank, are of much rarer occurrence, the latter especially so.

One bird there is that still visits the coast in passing, but in steadily decreasing numbers—the Dotterel. At one time this bird, with its grey and white head, and breast of chestnut and black, might have been frequently found nesting on heathery English mountains, especially in Westmorland and Cumberland. But its disposition was singularly confiding. When approached it merely moved a few paces away and regarded the encroacher with listless eyes. Thus, its feathers being in great request for the manufacture of trout-flies, it grows rarer year by year, and already in some of its once most favoured haunts the “stupid” Dotterel exists no more.

The Stone Curlew, too, is a summer migrant whose visits appear to grow rarer and rarer. It is a large handsome bird of brown and black-streaked plumage, and in formation has much of the character of the Bustards. At one time it was well known on the Yorkshire wolds, also the haunts in times gone by of the Great Bustard¹—birds which, we are told, resembled herds of fallow deer in the distance, but which are now extinct in this country. The Stone Curlew is still to be found nesting in many waste places in England, especially in Norfolk; and as the lands become enclosed, it not unfrequently takes up its residence in young plantations. The eggs, two in number, of a pale

¹ The admirable efforts of Lord Walsingham to re-introduce the Great Bustard to Norfolk in recent years, appear to have been frustrated by the murderous instincts of ignorant gunners.



STONE CURLEW ON NEST

clay-colour spotted and streaked with brown, are laid in a hollow scratched in the heath, or amidst scattered stones. When the young birds are approached, they crouch with their heads pressed closely against the sand or shingle, and it often becomes most difficult to distinguish them from their surroundings.

As the winter's night falls on the sand-dunes, the wind blows desolately. A little while before, in the failing evening light, the great river might be seen moving to the sea, its waveless tide flowing drearily through a desert of featureless mud. Now the river is lost in the gloom, and nothing can be made out save when some stray gleam touches the ooze of the mud-flats. The tiny point of light on some distant boat, which flickered for awhile on the water, goes out, or is hidden by something intervening. All is darkness and silence, broken only by the sigh of the wind and the distant lapping of the sea on the stones.

Suddenly the scene changes. Far over the sea-like waters of the river appears a long, narrow golden line. Slowly it broadens, and soon golden lines lie upon the mud-flats, waking them into beauty. As the moon rises fully, a long shining pathway stretches from the horizon, and across this the night-feeding birds, sometimes singly, sometimes in hungry flocks, move like shadows.

Soon a single Mallard beats across the dusk of the sky: then a dark mass sweeps over the bents, making for the distant edge of the river. In a little while a Redshank whistles and a Curlew cries in

the gloom. As one turns to look for the last time, the inky bird-figures are still moving in all directions on the golden road.

Beyond the dunes, on the narrow margin of shingle and sand which slopes to the sea, a little bird may be seen running swiftly, and when alarmed, rising with a soft piping cry, and alighting again at no great distance. The Ringed Plover is familiar here at all seasons of the year, and it is rarely that one wanders about the sand-dunes without catching a glimpse of the dainty form as it follows the receding wave, or moves feeding about the edges of the pools left by the tide.

Against the smooth surface of the sand the jet-black collar and white breast are at once conspicuous. But let the little Plover but run upon the belt of shingle, and at once the eye searches for it in vain. The pebbles, smoothed and rounded by the sea, are of varied colours—brown, black and pure white—and these match the hues of its plumage so completely that the small area upon which the bird rests must be examined with the utmost care before a living thing can be detected. Upon the shingle, in a slight depression without nest of any kind, the four eggs, of pale buff streaked with black, are laid; and these again harmonize so truly with their surroundings, that even when found, if the attention be averted for an instant, they seem to sink into invisibility.

Open to every chance comer, without shelter or protection of any kind, the eggs and nestlings owe



RINGED PLOVER

their security entirely to the curious fidelity with which their colours blend with those of the broken sea-shells and the variegated stones amidst which they lie.

About the English coasts a smaller variety of the common Ringed Plover is not unfrequently met with, and these are often mistaken for the true Little Ringed Plover, a species of the rarest occurrence, of which only two or three well-authenticated examples have been recorded.

The Kentish Plover, too, also occurs upon the mud-flats, on rare occasions, on migration. It may be distinguished from the Ringed Plover by the fact that the black band is not carried completely round the breast. Always an uncommon visitant to this country, its range to the north does not appear to extend beyond Yorkshire.

Two other species of coast-dwellers which are essentially birds of the shingle and the rocks rather than of the mud-flats, are the Turnstone and the inappropriately named Oyster-catcher.

The former is remarkable inasmuch as it belongs to a genus which contains one other representative only: a North American species of much darker plumage.

The Turnstone is a handsome bird, with black throat and white breast, and with back and wings variegated black and rich chestnut, with a broad band of white above the tail. In winter it occurs in large flocks upon the English coasts, but many are also met with throughout the year. It is a noteworthy fact that although the Turnstone has

often been observed in full breeding plumage even in June and July, its eggs have never been discovered in any part of the United Kingdom.

Its usual breeding quarters are in the far north, and the nest is placed upon some ledge or recess amidst the rocks. The eggs are of a greenish-grey ground colour, spotted with grey and brown.

In the Shetlands the Turnstone may often be seen feeding in little groups about the sea-weed on the partly submerged reefs.

Unlike the Turnstone, the Oyster-catcher is not only resident, but is a constant nesting species in this country. Few birds, indeed, are more conspicuous on English coasts and estuaries than is the beautiful Sea Pie. Its large size, clearly-defined black and white plumage, and long sealing-wax-like bill, taken in conjunction with its loud screaming cry, constantly uttered when on the wing, renders it a species impossible to overlook.

The eggs of the Oyster-catcher, three in number, and of a pale buff, spotted and streaked with grey and brown, are usually laid in a mere depression in the shingle; but instances are given of their occurrence in the deserted nest of the Herring Gull, and in meadows at some distance from the sea.



Photo by C. Kirk]

GUILLEMOTS

BIRDS OF THE SEA

THERE is a salt vigour in the air, and as the light breeze sends our little boat hissing through the waves, the great sea-cliffs cease to appear mere barriers of misty whiteness and begin to take on definite features. In many places the face of the rocks are sheer, giving no foothold for even the hardiest herbage, but elsewhere the grass grows freely on the ledges, and on some of the gentler declivities there are hollows and even broad terraces of the tenderest green.

Already the birds are about us and the air is filled with their varied cries. When still many miles away, parties of Guillemots, in close formation, swept past the boat at times making for the distant cliffs. Now they may be seen in all directions riding on the heaving tide, the black and white plumage of back and breast, and even the rusty brown of the neck, clearly contrasting with the green water. Save when the bows cleave through some little group, they show small sign of fear; even then, they merely fly for a few yards, with extended legs trailing through the water, and alight again amidst their fellows.

Beneath the precipitous rocks of the great breeding station the Guillemots are around us in countless thousands, flying hither and thither like bees about

a hive, and in places almost darkening the face of the sea. At the upper edge of the cliff, where the grass is cropped to lawn-like smoothness by the sheep, a rising Guillemot appears no larger than a swallow. Below, lining every ledge and jagged projection, the birds stand in close order, and their numbers appear to suffer no diminution from the constant succession which may be seen drooping from their lofty resting-places to the surging waters far beneath.

Upon the ledges, often so narrow that the slightest tilt would appear sufficient to dislodge it, the single, sharply pointed and disproportionately large egg is laid. In this case the pear-shaped formation fulfils a distinct use. The egg becomes almost incapable of rolling, and if set in motion merely revolves about the point. At the same time the space afforded is often so slight that when the Guillemots are suddenly alarmed, as by the firing of a gun, their outrush frequently dashes the egg clear of the ledges to the sea. No other British birds' eggs show the great variation in colouring to be observed in those of the Guillemots. The average may be taken to be of a bluish-green, blotched and streaked with black and rusty brown, but infinite modifications occur, ranging from a pale unspotted blue, almost a white, to the darkest umber, which is in some examples almost a uniform black. The young are covered with hair-like down, and, before they are able to fly, are borne by the parents to the sea beneath, where they at once swim and dive freely.

At the end of August or beginning of September



Photo by C. Kirk]

PUFFINS

the Guillemots, almost with one accord, desert the nesting rocks to make for the open sea, and during the whole of the winter are rarely seen about the coast. When the young birds have taken to the wing, great numbers may be shot from a boat anchored in their line of flight. Some years ago a local gunner received an order from a London firm for two thousand birds, to be sold, it was stated, for "potted grouse." The required number were secured in about fourteen days.

Nesting with the Guillemots and constantly mingling with them in the water, are the Razor-bills, at once to be distinguished by their broad white-lined bills. In habits the two birds are identical, but the latter are much less numerous as a species.

The egg of the Razor-bill is shorter and less pointed than that of its congener, and is frequently laid in crevices difficult of access even for the practised cliff-climber. It shows little variation in colour, being usually of a dull white, spotted and streaked with reddish- and dark-brown.

The Puffin, too, is one of the constant visitors to the sea-cliffs. On every slope and grassy hollow where a sufficient depth of earth may be obtained, the bird digs out the narrow tunnel in which the single white egg is laid. Sitting about the entrances of their homes, resting with the Guillemots and Razor-bills on the ledges, sometimes rising swallow-like against the blue sky, and again drooping to the deeply heaving sea, they appear to be ubiquitous. As they ride upon the green

water close at hand, now disappearing in the hollow, and now lifted to the summit of the rounded swell, the blue, red and yellow of the curiously large parrot-like bill may be clearly seen. The bill of the Puffin, indeed, is its most noteworthy characteristic. In the winter the outer sheath falls away, the colours become dim, and the bill itself is found to be perceptibly smaller.

Many gulls, too, screaming hoarsely, soar about the cliffs, alighting on the more prominent ledges and on every broken pinnacle of rock. The Kittiwakes are the most abundant, but numbers of Herring Gulls are usually abroad, together with a few pairs of Lesser Black-backs. The Black-backed Gulls do not appear to nest upon these lofty rocks, but at the other extremity of the bay, on the slopes of the lower clay cliffs, they form large and thriving colonies.

The Kittiwakes, with their snowy heads and breasts, delicate blue-grey mantles and black-tipped wings, cluster close together on the shattered face of the cliff, and on every inequality and slight projection which gives a holding, the tangled mass of sea-weed which forms the nest, is lodged.

Like that of the Kittiwake, the mantle of the Herring Gull is of a fine blue-grey, with wings black tipped, but the latter bird may be distinguished at once by his larger size, and by the spot of orange-red on his yellow bill. Again, the legs of the Herring Gull are of a pale flesh-colour, whilst those of the Kittiwake are a blackish-brown.

Many feathered visitors, not truly birds of the



Photo by C. Kirk]

KITTIWAKES

sea, find a home in this vast barrier of chalk. Noisy grey-headed Jackdaws, their black plumes contrasting with the snowy whiteness of the Kittiwakes, swarm about the crevices. Rock Doves, like broad blue arrows, dart round the angle of the cliff. Upon a grassy mound, undeterred by the constant thunder of the surf below, a Rock Pipit sits piping softly. Here, at one time, the croak of the Raven might be frequently heard, as the bird of ill-omen steered its straight course to the nesting ledges, and even to-day the dark form of the Peregrine may still be seen, cutting the blue air, as the mighty bird stoops from the sky to its eyrie on the splintered rocks.

At intervals along the whole line of the British coast, cliff formations occur, which, from vast areas, draw the birds of the sea to their craggy breasts. Of such are the famous Farne Islands, a group of different elevations and of characters varying from the shingles of the Sandwich Tern and the Oystercatcher, and the grassy holms of the Eider, to the loftiest rock-masses beloved of the Razor-bills, Guillemots and the Kittiwakes. Of such, too, is the Bass Rock on the east, and Ailsa Craig on the west, the ancestral homes of the Gannets, and along the coast-lines of the Outer Hebrides and of the Shetlands, a thousand altitudes arise to which the sea-fowl flock in their myriads as the seasons revolve.

At the rock stations in the far north of Great Britain many of the rarer birds of the sea, which occur on the English coasts only at irregular inter-

vals, find either a settled resort or a regular summer habitation for the rearing of their young. In the Shetlands, for example, a number of the less familiar species, mingling with hosts of the commoner forms, may be seen in the course of a single summer's day.

As one sails up the sunlit Voe, leaving the stiff squares of potatoes and wheat and the little white school-house on the mainland far behind, a grassy-topped island is reached. On the nearer side the land slopes almost to the water's edge, but fronting the sea it rises in a sheer precipice five hundred feet or more in height, at the base of which isolated stacks and pinnacles of rock, splintered in innumerable strange forms, rise from the surf.

In every tiny bay and harbour which give partial respite from the beat of the sea, little parties of "Tysties," or Black Guillemots, are swimming to and fro. The old birds, with their deep black plumage and broad bar of white across the wings, may easily be distinguished from the white-freckled birds of the year even at a considerable distance. Now one dives suddenly, and at times may be seen literally flying under water, the beating of the pinions having much more to do with his propulsion than the strokes of his red-webbed feet; now he appears again at some unlooked-for place as though nothing had happened, and rises erect in the water to beat the wave-drops from his shining wings.

The Black Guillemot differs from others of its race in that it lays two eggs. These are of a white ground colour, spotted and streaked with black and

brown. They are laid in some recess or lateral cleft in the cliff without semblance of a nest. When the young are hatched the parent birds may be seen constantly flying, with drooping red legs, to the nesting-place, bearing tiny fish in their bills.

It has been said that when the little ones descend to the sea the care of the parent ceases, and that the young gather together in isolated companies. I cannot believe, however, that this is invariably or even usually the case; indeed I have many times in August seen parties together which included young birds plainly unable to fly.

Although the Black Guillemot is generally confined to the northern parts of Great Britain, it breeds occasionally on the English coasts, and is known to occur as a casual visitor about the rocks of Flamborough.

On the less exposed sides of the island the sheer precipice falls away and its place is taken by gentler declivities, where rank herbage grows amidst detached boulders. Here, as well as upon the isolated stacks and holms, the Great and the Lesser Black-backed Gulls congregate, and here their deep nests of dry grass may be found. The eggs of both are usually three in number and are of a drab or light-olive ground colour, blotched with grey and dark-brown.

As he soars, snowy-breasted, against the blue sky, the Great Black-backed Gull is a singularly majestic bird: the largest of his race. His power is matched by his voracity, and not content with fish or with the wholesale destruction of eggs and

even of birds, he will fall upon the weakling lamb on the hillside and rend it in pieces.

This island, too, is the home of the Cormorant and the Shag, the latter, although generally rarer, being here the more common. Far out on the narrow, almost submerged skerry, where the marine tangle rises and falls to the beat of the sea, we see a row of motionless snake-like heads; they are all pointing silently upwards, as though unaware of our presence, but in reality every keen emerald eye is fixed upon the boat. To test this take a few gentle strokes nearer. One by one, without undue haste, they spread their big dark wings and fly heavily with out-stretched necks to some distant point. Others which have been disporting themselves around the rock raise their dark heads, and with a singularly graceful curve of head and neck, dive without a splash to come up far away, lying low in the water like black piratical hulks, but with watchful eyes turning hither and thither to see that we have not stolen a march on them during their temporary absence from the surface.

Beneath the water the Cormorants move with marvellous celerity. It might well be thought that a fish, in its native element, would readily escape from the onslaught of a mere bird. But if by fortunate chance, the Cormorant be seen in the crystal depths of the rock-pool, this belief is dispelled for ever. The long narrow black form appears sharpened to the finest point. Propelled only by the backward sweep of the webbed feet, turning like lightning to right or left around the angle of the rock or about the weeds, the black water-wolf



Photo by C. Kirk]

THREE NESTS OF YOUNG CORMORANTS

pursues its quivering prey. In point of speed the swiftest fish appears to be hopelessly outmatched. In a few seconds the relentless bill overtakes it and it instantly disappears. Differing from many other birds, the Cormorant does not rise to the surface in order to swallow its captive. The American Darter spears its victim with its needle-like bill, and ascending, thrusts its head clear of the water and detaches the fish with an upward movement of the tongue, catching it again neatly between its mandibles directly it is free. But the insatiable voracity of the Cormorant admits of no such delay. The fish vanishes like a fly before a swallow, and without a check in its speed the black hunter is again in pursuit.

Both the Cormorants and the Shags breed in the higher cliffs, their nests being formed mainly of sea-weed and coarse grass. The three to five eggs are covered with a white chalky material, rough in texture, which appears to be superadded to the true shell.

The Shag may be at once distinguished from the Common Cormorant by its smaller size and generally greener hue. In addition, the adult male Cormorant has a broad patch of white upon the thigh, lacking in the Shag.

Leaving the island, with Great and Lesser Black-backed Gulls and Herring Gulls innumerable flying around its rocky shores, we steer for the open sea. Out in the west we see dimly three irregular mountain peaks. These mark one of the chief nesting stations in Great Britain, where on the crags,

thirteen hundred feet high, the White-tailed Eagle makes its home, and on whose heathery slopes the Great Skua, a race elsewhere now nearly extinct, still thrives and breeds.

As we draw nearer to this mighty rock-wall which appears to tower almost to the skies, and against which the thundering surf creates a blinding mist which perpetually obscures its base, the Puffins and Guillemots are around us in thousands, diving hither and thither and flying from the course of the boat. Some little distance away a small party of Arctic Terns are fishing. Light as gossamer they hover around, and when they fly over us, with beaks pointed to the water beneath, the bright coral of their feet can be seen against their snowy feathers. Now one shuts its wings, and, as though its fair white form had been turned into marble in very reality, dashes sheer into the waves. Unlike the Gannet, however, it does not disappear, but as the splash subsides, it is seen fluttering upwards again with a tiny fish in its bill. As it rises to join its companions in the air, wild cries are heard—"tee-e-e rac, tee-e-e rac"—in every direction, and suddenly a swift dark bird sails into view. Round and round the little white angler it darts, until the latter drops its fish in terror, sometimes even disgorging those already swallowed. Before the prey can reach the water the pirate has seized it with a sudden downward swoop, and is making rapidly off. Over the heaving sea, across the jagged line of foam which marks where the steadfast rocks parry the blows of the waves, he wends his sombre way. Away to the right, the bulwark

of basalt, which elsewhere guards the island from the rage of the Atlantic, dwindles to a mere boundary line, and the brown heath comes nearly to the water's edge. Here the evil-doer enters his own domain, and as though in subtle sympathy with his crimes, the dim heathery ridges receive him and shelter him from recriminating eyes.

The Great Skua is a bird of uniform brown plumage, with black bill and feet. A glance at the sharp claws and powerful hooked beak shows it to be a true bird of prey. It is the chief of the group of Parasitic Gulls, living mainly on the fish caught by the smaller races, but it nevertheless frequently destroys the Terns and Kittiwakes themselves, and has been seen in the act of killing a bird even so large as the Herring Gull. The eggs, usually two in number, are of a deep olive-brown streaked with black, and the nest, formed of moss and heather, is placed on the bare heath without shelter or concealment of any kind. Indeed, the Great Skua appears to rely entirely upon its native ferocity for the protection of its home. When the breeding haunts are approached the birds at once sweep down upon the intruder, striking furiously with wing and claw.

A second species, the Arctic or Richardson's Skua, is much more widely distributed, nesting in many localities in the north lands and constantly occurring on migration about the English coasts. It follows the larger race in its habits, being essentially predatory and parasitic. The chief characteristic of the Arctic Skua is that two distinct forms occur—sometimes in the same nest—one

being of a uniform dusky hue, and the other having the breast and under surfaces of a creamy whiteness. The two varieties nest freely together, and apart from the distinction in colour are in every respect identical.

Two other species of Skua occur in England, the Pomatorhine and the Long-tailed. The former appears on the British coasts on migration only, although sometimes in considerable flocks: whilst the latter, the smallest of the race, is merely a rare and casual visitor.

On the summit of the great cliff a dead level of green extends, cropped by the rabbits to the smoothness of a carpet, and with outer edge cut clean off as with a knife. When we creep to the margin on hands and knees and look down, we see dimly through the mists the huge waves leaping against the dull frowning barrier only to be hurled far back in shattered spray, and yet so great is the distance that the sound of the conflict ascends as a faint murmur only to the heights. Now a dark bird darts past skirting the face of the cliff. The pointed wings, the band of white on the back, and the swallow-like flight give it something of the appearance of a House Martin, but it is obviously larger.

The Storm Petrel is one of the truest birds of the sea, roaming at large over the wastes of water for the greater part of the year, and visiting the shores only for the purpose of rearing its young. The nest, formed of a few stems of grass, is commonly placed in the cleft of a rock, but is sometimes found

beneath the boulders which strew the beach. A single white egg is laid, and when the birds are sitting they frequently utter a twittering sound which leads to the discovery of their hiding-place.

The smallest of British web-footed birds, the Storm Petrel is the most intrepid of ocean wanderers. Undeterred by storm and tempest, it follows the curve of the great rollers, when thousands of miles from land, often standing with outspread wings upon the water to seize its minute prey. As it progresses it appears to run over the waves rather than to fly, and from this habit its name Petrel is said to be derived in reference to the walking on the water of the Apostle Peter. Although Petrels are rarely killed by striking against the lanterns of lighthouses, a fate which overtakes so many birds when crossing the sea at night, they none the less seem to be strongly attracted by light, and frequently board the passing ships in mid-Atlantic, when they appear to become dazed and will permit themselves to be taken by hand.

Of the four other species of British Petrel, the Fulmar nests abundantly in certain of the more remote islands of the north, especially in St. Kilda, but in England it occurs only as a winter visitor; the Capped, Bulwer's and Forked-tailed Petrels are birds of one or two occurrences only.

Allied to the Petrels are the Shearwaters, a group consisting of four species, the Manx, Great, Sooty and Dusky. They also are birds of vast oceanic range. The Manx Shearwater appears commonly

on the English coasts, nesting in several localities, but the remaining three are of the rarest occurrence.

The Gannet is one of the most local of British sea-fowl in the choice of a nesting station. In England the only breeding site selected is on Lundy Island; on the Scottish coast, including the cliffs and rock-islands of the Hebrides, only five stations are known. On these, however, the birds congregate in vast numbers, and from these centres they scour the seas in all directions in pursuit of the fish on which they prey.

The nest is formed of sea-weed and grass, and the single egg is white faintly tinged with blue. Young Gannets are largely used for food, and from two to three thousand birds are sometimes collected from one station. When the young are hatched they are nearly black, but as the years go by they pass through various changes, their mottled brown hues growing lighter and lighter, until at length, in their sixth year, they attain full adult plumage of pure white save for the tinge of saffron yellow on the neck and the jetty blackness of the wing-tips. It is a most interesting thing to watch the movements of these sea-fowl when engaged in fishing. Sometimes the calm face of the sea is seen to be broken by a sudden ripple. For a few moments an area of fifty yards or more is stirred by the rushing of innumerable forms as the vast shoals of herring are forced to the surface by the inroads of hungry fish beneath. Billet, dog-fish and a host of others follow the shoal. Now



Photo by C. Kirk

GANNETS

and then the dark shiny bulk of a porpoise is seen revolving through the water, giving the casual observer the impression that he is constructed on the principle of a cart-wheel. If one sees him in a fathom or more of clear water, however, this view changes in a flash; his long black form is straight as an arrow as he darts hither and thither in restless quest.

Above the shoal a group of sea-birds are hovering, their white wings now and again flashing in the sunlight. As one watches closely the light airy forms of the little Arctic Terns can be easily distinguished from the more steadily balanced and slower winged Lesser Black-backed and Herring Gulls which are eagerly scanning the water in their wheeling flight. The Terns drop swiftly to the sea when they sight their quarry, and then rise instantly, fluttering upwards, leaving a dimpling ring behind. The heavier Gulls swoop downwards and often alight and float upon the surface before attempting to regain the air. Then come fishers bolder and more impetuous than any of these. Sailing widely on their broad pinions the Gannets appear. From great heights they hurl themselves sheer into the water, the spray leaping upwards as though from a falling stone; then they follow their prey far in the deeps, often remaining for several minutes beneath the surface. The herring owes its immunity from destruction to sheer force of numbers. When the shoal is beneath the surface, the porpoise and other hungry sea-dwellers are taking their toll; when it ascends and hisses along the face of the water, the opportunity of a myriad

winged watchers overhead has arrived. In every case it is death to the individual herring, but the species still sails on, calm and strong in the strength of indestructible quantity.

Of the two species of Auk—the Great and the Little—once to be described as British, a pathetic interest attaches to the former, inasmuch as it represents a race which has now become extinct, not only in Great Britain but in the world. At one time it was probably not uncommon in these islands, for its remains have been found in the sea-caves of Durham, in Caithness, Argyllshire, and in several localities in Ireland. An expert swimmer, the Great Auk was unable to fly, and this drawback, taken in conjunction with a confiding disposition, led to its wholesale destruction. In Newfoundland, Great Auks were once so plentiful that it is stated “they multiplied so infinitely upon a certain flat Iland that men drave them from thence upon a boorde into their boates by hundreds at a time, as if God had made the innocency of so poore a creature to become such an admirable instrument for the sustentation of man.”

In Iceland, too, the nesting Skerries were periodically visited, when great numbers of the birds were carried away. Thus it came about that in 1844, from a remote reef of rock known as Eldey, the last pair of Great Auks were taken, and with these this interesting species became exterminated.

Sixty-nine examples of the egg of the Great Auk are believed to exist in various collections, and when any of these chance to come into the market,

sums amounting to several hundreds of pounds are readily paid for a single specimen.¹

The Little Auk—a link between the Guillemots and the true Auks—is an Arctic breeding species which commonly visits the English coasts in the winter. In common with the Petrels it has a wide oceanic range, and rarely seeks the land except in the nesting season, or when driven thither by stress of weather. Somewhat curiously for so true a bird of the sea, it appears to suffer from the violence of storms to an extent unknown to its congeners. Frequently during heavy gales, numbers of Little Auks are driven ashore and are found exhausted on the beach; and one constantly hears of examples occurring far inland, even in such unlikely situations as the centre of a midland town.

The Little Auk lays its single egg of greenish-white, faintly spotted with red, in crevices beneath boulders or in rifts in the higher rocks. Although the bird sometimes occurs in North Britain in summer, no instance is recorded of the eggs having been found in the British Islands.

Certain birds of the sea there are which, as spring draws near, desert the salt water and the cliffs and often travel far inland in search of a nesting haunt. Of these the Black-headed Gulls are the most noteworthy. Their habit is to select some marshy expanse to which they return year after year, forming vast colonies. On every tussock and mass of reeds the nests are placed in close proximity, and

¹ The market appears to fluctuate, however, and of late the prices realised have fallen off.

few things in English bird life are more remarkable than the sight of the myriads of white wings beating the air together when the Gulls chance to be disturbed. These colonies are so well known and are so easily accessible that the preservation of the species depends largely on the fostering care of the owners of the domains. Fortunately for the bird-lovers, the work of protection has hitherto been done so effectively that the vast increase in the numbers of the Black-headed Gulls has been made a matter of complaint.

The Common Gull, too, although it nests frequently on the low rocks of the sea-coasts, still seeks the islands and shores of inland lakes in order to rear its young. It is by no means so common as its name would imply, and is rarely seen in England except in the winter. The Common Gull resembles the Kittiwake in many respects, but it may be distinguished by its larger size and by the fact that the adult male has a red circle about the eye.

Of the remaining species of Gull which are included in the British list, the Cuneate-tailed, Bonapartian, Sabine's, Little, Great Black-headed, Glaucus, Iceland and the Ivory, all are of rare occurrence, and several may be regarded as the merest stragglers.

To the lochs of the far north, the Divers, too, resort to nest. This small group, consisting of three species, the Great Northern and the Black-and Red-throated, are well and aptly named. Divers they are essentially, every line of their

graceful yet powerful forms being drawn with the view of swift progression beneath the water. The legs set far back, are broad, yet perfectly flat, and when the webbed foot is drawn up preparatory to the stroke, the narrow edge alone of leg and foot is opposed to the element. As the foot descends these broad surfaces are brought to bear upon the water, and the bird shoots forward like an arrow driven from a bow.

The Great Northern Diver, with the jet-black plumage of his back and wings barred with regular lines of pure white, is a conspicuously handsome bird, the Black-throated being only slightly less striking. Each of the three species is a true bird of the sea, and both the Great Northern and the Red-throated are frequently to be seen about the English coasts in the winter. The Black-throated is much rarer, but even he occurs at times in these southern latitudes, his dark head raised from the water ready to disappear at the first sign of danger. The Great Northern Diver is not known to nest in Great Britain, although birds in full breeding array are sometimes to be met with in the Shetlands in the summer, but on certain of the grassy islands of the more remote lochs, the Black-throat is still to be found, and throughout the whole of the north of Scotland as well as in the Shetlands, the Red-throat is a regular nesting species.

A HIGHLAND LOCH

For many miles the great loch winds through the wildest and most mountainous scenery; yet

although the grey scarred crests rise on every hand and are reflected in the pure water beneath, the lower slopes of the hills and the margin of the loch itself are clothed with soft woods and the greenest vegetation. At the side of the still water we find the desolation of the higher ground merging into the gentlest pastoral beauty, and from a single standpoint many birds may be seen whose habits and associations are usually considered to be far apart. In the green dells, amidst the leafy boughs and springing flowers, we hear the Willow Wren and the smaller warblers singing, whilst from the bare screes above come the croak of the Raven and the scream of the Golden Eagle or Peregrine.

Many of the birds which St. John described as belonging to this region in 1848 are still to be found. The Ospreys which nested for so many years on the ruined castle which still stands on the peninsula have, of course, entirely disappeared, but the Red-necked Phalarope, the Greenshank and the Divers, as well as many of the larger birds of prey, still haunt the old creeks and islets or the rocky fastnesses of the cliffs.

One bird constantly hovering around the loch is the Common Gull. About the small boulders and stony points which project into the water, the eye is sometimes attracted to a rough mass of sticks and weed which might well be the *débris* left by a falling tide. But as one draws near, the birds hover and scream so loudly overhead, that one perforce examines the tangle more narrowly. Here in the deep hollow, the two or three eggs, olive-brown and spotted and blurred with black, are laid,

or it may be that the grey mottled little ones will make for the water and swim boldly into the open with the old birds in anxious attendance.

Out on the loch, on the grass-grown islands, the Terns gather, chiefly the Arctic, for in North Britain the Arctic form largely takes the place of the common variety so well known on the English coasts. The points of difference in the two species are not very clearly marked, and by the earlier writers the two birds were treated as identical. The Arctic, however, may be distinguished by his more slender form, longer tail-feathers, and by the fact that on his coral-red bill the black tip is largely lacking. Like the Common Tern, the Arctic makes hardly the semblance of a nest, and the two to three brown mottled eggs are usually laid in a mere depression in the herbage.

If the island where the colony are nesting be approached, the birds fly excitedly around the invader, uttering their incessant cries, "tee-e-e rac, tee-e-e rac," and like the Skuas, will at times actually strike at him as they pass.

Of the other species of Tern, the Sandwich and the Lesser, both nest in certain localities on the shingle of the English coast as well as in Scotland, whilst the remaining races, the Black, White-winged Black, Whiskered, Gull-billed, Caspian, Roseate, Sooty and Noddy, although examples of all have been obtained in one or other part of Great Britain, must be regarded as English mainly by courtesy.

About one of the islands, flat and covered with tall-growing vegetation, with many little grassy

creeks and indentations in its sides, the Black-throated Diver may sometimes be seen swimming, now and again bending its slender neck and gracefully dipping its bill in the water. As the boat draws slowly nearer, the bird makes no effort to rise, nor, indeed, to increase the distance between the enemy and itself. It merely sinks lower and lower into the water until nothing is visible save the lithe neck and dart-like head and bill, and in a moment more, without any perceptible splash, these, too, disappear. The face of the loch is like a mirror, but one may look long before the low-lying dark form appears again far off on the surface.

Upon the island the Black-throat nests, and one may trace the track through the crushed herbage to the place where the two olive-brown and black spotted eggs are laid. The conformation of these true water-birds is such that their progression on land is a slow and awkward process, and when approaching or leaving the nest they must fain propel themselves, seal-like, through the grass with breasts resting on the ground.

But even if the Black-throat is looked for in vain, a sight of the Red-throat may be constantly gained, especially about the smaller lochs hidden in the folds of the hills. Wonderful fishers are they, not keeping to their own domain, but knowing well the resources of every sheet of water in the locality for many miles around. To a suitable feeding-place they will come every day with the most marked punctuality. One day I watched a pair of Red-throats arrive at the loch from some

distant nesting station. They dropped straight into the water and instantly dived. In a few moments they reappeared, and at once took wing across the hills from whence they came. The hour was 4.30 p.m. Every day during the time that I fished there, never deviating by more than five minutes from the appointed time, the pair came, collected their prey in exactly the same manner, and again took their course across the same hills.

In these Highland latitudes at mid-summer it never grows really dark. After the sun sets behind the rocky summits, the light is gradually subdued; the world grows more silent and peaceful, and the mountains seem to grow nearer and to rest like gigantic shadows close at hand. Even at midnight the colours of the flies on the angler's cast can be distinguished, or the form of a Curlew made out as it stands silhouetted against the sky on a distant grassy mound. From the dim crofts on the hillsides comes the monotonous "craik—craik—craik" of the sleepless Landrail, and from the wooded heights of the opposite shore one may hear the faint cry of the fox or even of the wild cat, a race now nearly exterminated.

At this season wild Nature is never at rest. In the owl-light a wandering Gull still screams in the air, or the dark form of a Cormorant wings its sinister way across the loch. As night's meridian is reached and turned, a nameless change comes in the atmosphere. The shadowy mountains draw back and their features become more defined. A new, wan light rests on the upper slopes and the

Twites and Wheatears begin to flit and twitter around, aroused from their silence by the warning of the coming day.

As we take our way home on the narrow mountain road many birds are singing, and the new light is slowly spreading over the hills. In a little glen a herd of deer, startled by our approach, run rapidly up the slope, and looking back from a long distance we can see them still watching us, their antlered heads standing clearly out from amidst the bracken.

THE END

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